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TABLES AND GRAPHS OF OSCILLATOR SPHEROIDAL FUNCTIONS

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1. Introduction

In ref.[1] the problem has been studied of an isotropic quantum oscillator in prolate and oblate spheroidal coordinates and a new class of special functions has been introduced, the class of prolate and oblate spheroidal functions of the oscillator. These functions are related to spheroidal and Coulomb spheroidal functions which have found application in radiophysics, optics and quantum mechanics [x]. Unlike the classical special functions the oscillator spheroidal functions do not obey recurrence formulae and have no integral representations. This "anomaly" can be explained by a specific feature of the spheroidal coordinate system[2] : there cannot be made expansions of the group of motion of a three-dimensional space into one-parameter subgroups. This peculiarity much complicates the study and application of spheroidal functions and puts forward the problem of compilation of tables and graphs of appropriate effective calculation algorithms at computer. In this paper, tables and graphs of prolate and oblate spheroidal functions of the oscillator are obtained only for several of the first values of quantum numbers of these functions. A more complete solution to this problem is still to be looked for.

2. Prolate angular spheroidal functions of the oscillator

Let us introduce the operator $\hat{A}(n,m,c;\eta)$ dependent on the variable $\eta \in [-1,1]$, quantum numbers n, m and parameter c :

$$\hat{A}(n,m,c;\eta) = \frac{d}{d\eta}(\eta^2-1)\frac{d}{d\eta} + 2(n+\tfrac{3}{2})c\eta^2 - \frac{m^2}{\eta^2-1} - c^2\eta^2(\eta^2-1) \qquad (1)$$

The quantum number n assumes only integer nonnegative values, $|m|$ may equal $0,1,2,\ldots n$, and parameter $c \in [0,\infty)$. The prolate angular spheroidal functions $Y_q(n,m,c;\eta)$ are defined as solutions to the following Sturm-Liouville equation:

$$\hat{A}(n,m,c;\eta)\, Y_q(n,m,c;\eta) = A_q(n,m,c)\, Y_q(n,m,c;\eta) \qquad (2)$$

The quantum number q enumerates eigenvalues A_q and coincides with the number of zeros of the functions Y_q in the interval $(-1,1)$.

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[x] Theory and methods of the calculation of spheroidal and Coulomb spheroidal functions and their most important applications can be found in monograph[2].

In ref.[1] it has been shown that the functions Υ_q are divided into two classes, $\Upsilon_q^{(+)}$ and $\Upsilon_q^{(-)}$, with positive and negative parity in variable η and are determined by the expressions:

$$\Upsilon_q^{(+)}(n,m,c;\eta) = e^{-\frac{c\eta^2}{2}}(1-\eta^2)^{\frac{|m|}{2}}\sum_s a_{2s}(n,m,c)\,\eta^{2s} \qquad (3)$$

$$\Upsilon_q^{(-)}(n,m,c;\eta) = e^{-\frac{c\eta^2}{2}}(1-\eta^2)^{\frac{|m|}{2}}\sum_s a_{2s+1}(n,m,c)\,\eta^{2s+1} \qquad (4)$$

Summation in (3) and (4) runs over $s=0,1,\ldots \frac{n-|m|}{2}$ and $s=0,1,\ldots \frac{n-|m|-1}{2}$ (in the first case $n-|m|$ is even; in the second, odd). From the meaning of the quantum number q it is clear that for $\Upsilon_q^{(+)}$ and $\Upsilon_q^{(-)}$ $q=0,2,\ldots\ldots n-|m|$ and $q=1,3,\ldots\ldots n-|m|$, respectively. Coefficients a_{2s} and a_{2s+1} obey trinomial recurrence formulae:

$$-(2s+1)(2s+2)a_{2s+2} + \{(2s+|m|)(2s+|m|+1)+4cs - A_q^{(+)}+c\}a_{2s} + 2c(n-|m|+2-2s)\,a_{2s-2} = 0 \qquad (5)$$

$$-(2s+2)(2s+3)a_{2s+3} + \{(2s+|m|+1)(2s+|m|+2)+2c(2s+1) - A_q^{(-)}+c\}a_{2s+1} + 2c(n-|m|+1-2s)\,a_{2s-1} = 0 \qquad (6)$$

and the boundary conditions

$$a_{-2} = a_{-1} = 0\ , \quad a_0 = a_1 = 1 \qquad (7)$$

normalizing the function $\Upsilon_q^{(\pm)}$.

Therefore, the tables and graphs we are interested in are constructed by solving two systems of homogeneous equations (5) and (6) with boundary conditions (7). Results for particular cases $0 \le n-|m| \le 5$ are given in Table 1 and graphs in Fig. 1.

3. <u>Prolate radial spheroidal functions of the oscillator</u>

Let us redenote the variable in operator (1) by ξ and assume the $\xi \in [1,\infty)$. Prolate radial spheroidal functions of

the oscillator will be defined as solutions to the Sturm-Liouville problem:

$$\hat{A}(n,m,c;\xi)X_\kappa(n,m,c;\xi) = B_\kappa(n,m,c)X_\kappa(n,m,c;\xi) \qquad (8)$$

The quantum number κ enumerates eigenvalues B_κ and coincides with the number of zeros of the function X_κ in the interval $(1,\infty)$. According to[1] equation (8) has two classes of solutions, even and odd in the variable ξ. These solutions can be represented by polynomials:

$$X_\kappa^{(+)}(n,m,c;\xi) = e^{-\frac{c}{2}(\xi^2-1)}(\xi^2-1)^{\frac{|m|}{2}}\sum_s b_s(n,m,c)(\xi^2-1)^s \qquad (9)$$

$$X_\kappa^{(-)}(n,m,c;\xi) = e^{-\frac{c}{2}(\xi^2-1)}(\xi^2-1)^{\frac{|m|}{2}}\xi\sum_s g_s(n,m,c)(\xi^2-1)^s \qquad (10)$$

The range of summation in (9) and (10) is the same as in (3) and (4). The coefficients b_s and g_s satisfy the trinomial recurrence relations:

$$4(s+1)(s+|m|+1)b_{s+1} + \{(2s+|m|)(2s+|m|+1)+2c(n-|m|-2s) - B_\kappa^{(+)}+c\}b_s + 2c(n-|m|+2-2s)b_{s-1} = 0 \qquad (11)$$

$$4(s+1)(s+|m|+1)g_{s+1} + \{(2s+|m|+1)(2s+|m|+2)+2c(n-|m|-2s) - B_\kappa^{(-)}+c\}g_s + 2c(n-|m|+1-2s)g_{s-1} = 0 \qquad (12)$$

and the boundary conditions

$$b_{-1} = g_{-1} = 0\ , \quad b_0 = g_0 = 1 \qquad (13)$$

fixing the normalization of functions $X_\kappa^{(\pm)}$. Results of the solution of two systems of homogeneous equations (11) and (12) with the boundary condition (13) for $0 \le n-|m| \le 5$ are collected in Tables 2 and graphs in Fig. 2.

4. <u>Oblate spheroidal functions of the oscillator</u>

We shall not here discuss these functions in detail; rather we shall note that according to ref.[1] these functions follow from analogous functions in prolate spheroidal coordinates by using the formulae

$$\tilde{Y}^{(\pm)}_{t}(n,m,p;\bar{\eta}) = (-1)^{\frac{|m|}{2}} X^{(\pm)}_{\frac{n-t-|m|}{2}}(n,m,-p;\bar{\eta}) \qquad (14)$$

$$\tilde{X}^{(+)}_{r}(n,m,p;\bar{\xi}) = Y^{(+)}_{n-2r-|m|}(n,m,-p;i\bar{\xi}) \qquad (15)$$

$$\tilde{X}^{(-)}_{r}(n,m,p;\bar{\xi}) = -i\, Y^{(-)}_{n-2r-|m|}(n,m,-p;i\bar{\xi}) \qquad (16)$$

$$\bar{\eta} \in [-1,1], \quad \bar{\xi} \in [0,\infty)$$

i.e. they represent analytic continuations of prolate spheroidal oscillator functions into an "unphysical" region of the variables η, ξ and parameter c. Tables 3, 4 and graphs in Figs. 3,4 are compiled by formulae (14)-(16).

5. Particular cases

The explicit form of spheroidal oscillator functions for arbitrary n and $|m|$, when $0 \le n-|m| \le 3$, is as follows:

$$Y^{(+)}_{0}(n,n,c;\eta) = \exp\left(-\frac{c\eta^2}{2}\right)(1-\eta^2)^{\frac{n}{2}}$$

$$Y^{(-)}_{1}(n,n-1,c;\eta) = \exp\left(-\frac{c\eta^2}{2}\right)(1-\eta^2)^{\frac{n-1}{2}}\eta$$

$$Y^{(+)}_{0}(n,n-2,c;\eta) = \exp\left(-\frac{c\eta^2}{2}\right)(1-\eta^2)^{\frac{n-2}{2}} \cdot$$

$$\cdot\left\{1 - \frac{(2n-1)+2c-\sqrt{(2n-1)^2+4c(2n-3)+4c^2}}{2}\eta^2\right\}$$

$$Y^{(+)}_{2}(n,n-2,c;\eta) = \exp\left(-\frac{c\eta^2}{2}\right)(1-\eta^2)^{\frac{n-2}{2}} \cdot$$

$$\cdot\left\{1 - \frac{(2n-1)+2c+\sqrt{(2n-1)^2+4c(2n-3)+4c^2}}{2}\eta^2\right\}$$

$$Y^{(-)}_{1}(n,n-3,c;\eta) = \exp\left\{-\frac{c\eta^2}{2}\right)(1-\eta^2)^{\frac{n-3}{2}}\eta \cdot$$

$$\cdot\left\{1 - \frac{(2n-1)+2c-\sqrt{(2n-1)^2+4c(2n-7)+4c^2}}{6}\eta^2\right\}$$

$$Y^{(-)}_{3}(n,n-3,c;\eta) = \exp\left(-\frac{c\eta^2}{2}\right)(1-\eta^2)^{\frac{n-3}{2}}\eta \cdot$$

$$\cdot\left\{1 - \frac{(2n-1)+2c+\sqrt{(2n-1)^2+4c(2n-7)+4c^2}}{6}\eta^2\right.$$

$$X^{(+)}_{0}(n,n,c;\xi) = \exp\left[-\frac{c}{2}(\xi^2-1)\right](\xi^2-1)^{\frac{n}{2}}$$

$$X^{(-)}_{0}(n,n-1,c;\xi) = \exp\left[-\frac{c}{2}(\xi^2-1)\right](\xi^2-1)^{\frac{n-1}{2}}\xi$$

$$X^{(+)}_{0}(n,n-2,c;\xi) = \exp\left[-\frac{c}{2}(\xi^2-1)\right](\xi^2-1)^{\frac{n-2}{2}} \cdot$$

$$\cdot\left\{1 + \frac{(2n-1)-2c+\sqrt{(2n-1)^2+4c(2n-3)+4c^2}}{4(n-1)}(\xi^2-1)\right\}$$

$$X^{(+)}_{1}(n,n-2,c;\xi) = \exp\left[-\frac{c}{2}(\xi^2-1)\right](\xi^2-1)^{\frac{n-2}{2}} \cdot$$

$$\cdot\left\{1 + \frac{(2n-1)-2c-\sqrt{(2n-1)^2+4c(2n-3)+4c^2}}{4(n-1)}(\xi^2-1)\right\}$$

$$X^{(-)}_{0}(n,n-3,c;\xi) = \exp\left[-\frac{c}{2}(\xi^2-1)\right](\xi^2-1)^{\frac{n-3}{2}}\xi \cdot$$

$$\cdot\left\{1 + \frac{(2n-1)-2c+\sqrt{(2n-1)^2+4c(2n-7)+4c^2}}{4(n-2)}(\xi^2-1)\right\}$$

$$X^{(-)}_{1}(n,n-3,c;\xi) = \exp\left[-\frac{c}{2}(\xi^2-1)\right](\xi^2-1)^{\frac{n-3}{2}}\xi \cdot$$

$$\cdot\left\{1 + \frac{(2n-1)-2c-\sqrt{(2n-1)^2+4c(2n-7)+4c^2}}{4(n-2)}(\xi^2-1)\right\}$$

$$\tilde{Y}_0^{(+)}(n,n,p;\bar\eta) = \exp\left[-\frac{p}{2}(1-\bar\eta^2)\right](1-\bar\eta^2)^{\frac{n}{2}}$$

$$\tilde{Y}_1^{(-)}(n,n-1,p;\bar\eta) = \exp\left[-\frac{p}{2}(1-\bar\eta^2)\right](1-\bar\eta^2)^{\frac{n-1}{2}}\bar\eta$$

$$\tilde{Y}_0^{(+)}(n,n-2,p;\bar\eta) = \exp\left[-\frac{p}{2}(1-\bar\eta^2)\right](1-\bar\eta^2)^{\frac{n-2}{2}} \cdot$$

$$\cdot\left\{1-\frac{(2n-1)+2p-\sqrt{(2n-1)^2-4p(2n-3)+4p^2}}{4(n-1)}(1-\bar\eta^2)\right\}$$

$$\tilde{Y}_2^{(+)}(n,n-2,p;\bar\eta) = \exp\left[-\frac{p}{2}(1-\bar\eta^2)\right](1-\bar\eta^2)^{\frac{n-2}{2}} \cdot$$

$$\cdot\left\{1-\frac{(2n-1)+2p+\sqrt{(2n-1)^2-4p(2n-3)+4p^2}}{4(n-1)}(1-\bar\eta^2)\right\}$$

$$\tilde{Y}_1^{(-)}(n,n-3,p;\bar\eta) = \exp\left[-\frac{p}{2}(1-\bar\eta^2)\right](1-\bar\eta^2)^{\frac{n-3}{2}}\bar\eta \cdot$$

$$\left\{1-\frac{(2n-1)+2p-\sqrt{(2n-1)^2-4p(2n-7)+4p^2}}{4(n-2)}(1-\bar\eta^2)\right\}$$

$$\tilde{Y}_3^{(-)}(n,n-3,p;\bar\eta) = \exp\left[-\frac{p}{2}(1-\bar\eta^2)\right](1-\bar\eta^2)^{\frac{n-3}{2}}\bar\eta \cdot$$

$$\cdot\left\{1-\frac{(2n-1)+2p+\sqrt{(2n-1)^2-4p(2n-7)+4p^2}}{4(n-2)}(1-\bar\eta^2)\right\}$$

$$\tilde{X}_0^{(+)}(n,n,p;\bar\xi) = \exp\left(-\frac{p\bar\xi^2}{2}\right)(\bar\xi^2+1)^{\frac{n}{2}}$$

$$\tilde{X}_1^{(-)}(n,n-1,p;\bar\xi) = \exp\left(-\frac{p\bar\xi^2}{2}\right)(\bar\xi^2+1)^{\frac{n-1}{2}}\bar\xi$$

$$X_0^{(+)}(n,n-2,p;\bar\xi) = \exp\left(-\frac{p\bar\xi^2}{2}\right)(\bar\xi^2+1)^{\frac{n-2}{2}} \cdot$$

$$\cdot\left\{1+\frac{(2n-1)-2p+\sqrt{(2n-1)^2-4p(2n-3)+4p^2}}{2}\bar\xi^2\right\}$$

$$\tilde{X}_1^{(+)}(n,n-2,p;\bar\xi) = \exp\left(-\frac{p\bar\xi^2}{2}\right)(\bar\xi^2+1)^{\frac{n-2}{2}}$$

$$\left\{1+\frac{(2n-1)-2p-\sqrt{(2n-1)^2-4p(2n-3)+4p^2}}{2}\bar\xi^2\right\}$$

$$\tilde{X}_0^{(-)}(n,n-3,p;\bar\xi) = \exp\left(-\frac{p\bar\xi^2}{2}\right)(\bar\xi^2+1)^{\frac{n-3}{2}}\bar\xi \cdot$$

$$\cdot\left\{1+\frac{(2n-1)-2p+\sqrt{(2n-1)^2-4p(2n-7)+4p^2}}{6}\bar\xi^2\right\}$$

$$\tilde{X}_1^{(-)}(n,n-1,p;\bar\xi) = \exp\left(-\frac{p\bar\xi^2}{2}\right)(\bar\xi^2+1)^{\frac{n-3}{2}}\bar\xi \cdot$$

$$\cdot\left\{1+\frac{(2n-1)-2p-\sqrt{(2n-1)^2-4p(2n-7)+4p^2}}{6}\bar\xi^2\right\}$$

6. Eigenvalues $\mathcal{A}_q^{(\pm)}$ and $\mathcal{B}_k^{(\pm)}$

Eigenvalues $\mathcal{A}_q^{(\pm)}$ and $\mathcal{B}_k^{(\pm)}$ are determined from the requirement that the determinants for homogeneous systems of equations (5), (6), and (11), (12) equal zero. The dependence of $\mathcal{A}_q^{(\pm)}$ and $\mathcal{B}_k^{(\pm)}$ on C at given n and $|m|$ is shown in Tables 5,6 and graphs in Figs. 5. There is also given their analytic continuation into a "physical" region of oblate functions. Note that the quantum numbers q and k are related by $n-|m|-q=2k$ /1/, and

$$\mathcal{A}_q^{(\pm)}(n,m,c) = \mathcal{B}_k^{(\pm)}(n,m,c)$$

7. Conclusion

The functions studied above naturally arise when the variables are separated in the Schrödinger equation for an isotropic oscillator in prolate and oblate spheroidal coordinates. The latter are connected with rectangular coordinates as follows:

$$x = \frac{R}{2}\sqrt{(\xi^2-1)(1-\eta^2)}\cos\varphi\,,\quad y = \frac{R}{2}\sqrt{(\xi^2-1)(1-\eta^2)}\sin\varphi\,,\quad z = \frac{R}{2}\xi\eta$$

$$X=\frac{\bar{R}}{2}\sqrt{(\bar{\xi}^2+1)(1-\bar{\eta}^2)}\cos\varphi\,,\quad y=\frac{\bar{R}}{2}\sqrt{(\bar{\xi}^2+1)(1-\bar{\eta}^2)}\sin\varphi\,,\quad z=\frac{\bar{R}}{2}\bar{\xi}\bar{\eta}\,.$$

Here the angle φ changes within the interval $0\le\varphi<2\pi$; the range of variation of the coordinates (ξ,η) and $(\bar{\xi},\bar{\eta})$ has been indicated in the main body of the manuscript. The parameter R is expressed through C by the formula

$$c=\frac{\mu\omega}{4\hbar}R^2$$

in which μ is the mass, ω is a cyclic velocity of an isotropic oscillator. An analogous relation is valid for parameters $\bar{R}$ and p . Total wave functions of an isotropic oscillator in prolate spheroidal coordinates have the form

$$\Psi^{(\pm)}_{nqkm}(\xi,\eta,\varphi;c)=N^{(\pm)}_{nqm}(c)\,Y^{(\pm)}_{q}(n,m,c;\eta)\,X^{(\pm)}_{k}(n,m,c;\xi)\,\frac{e^{im\varphi}}{\sqrt{2\pi}}$$

where $N^{(\pm)}_{nqm}(c)$ is a normalization constant. The oblate basis follows from this formula by the change $\eta\to\bar{\eta}$, $\xi\to\bar{\xi}$, $c\to p$. Indices of the total wave functions of the oscillator are related by $n=2k+|m|+q$.

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References

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2. I.V.Komarov, L.I.Ponomarev, S.Yu.Slavyanov. Spheroidal and Coulomb Spheroidal Functions, Nauka, Moscow, 1976 (in Russian).

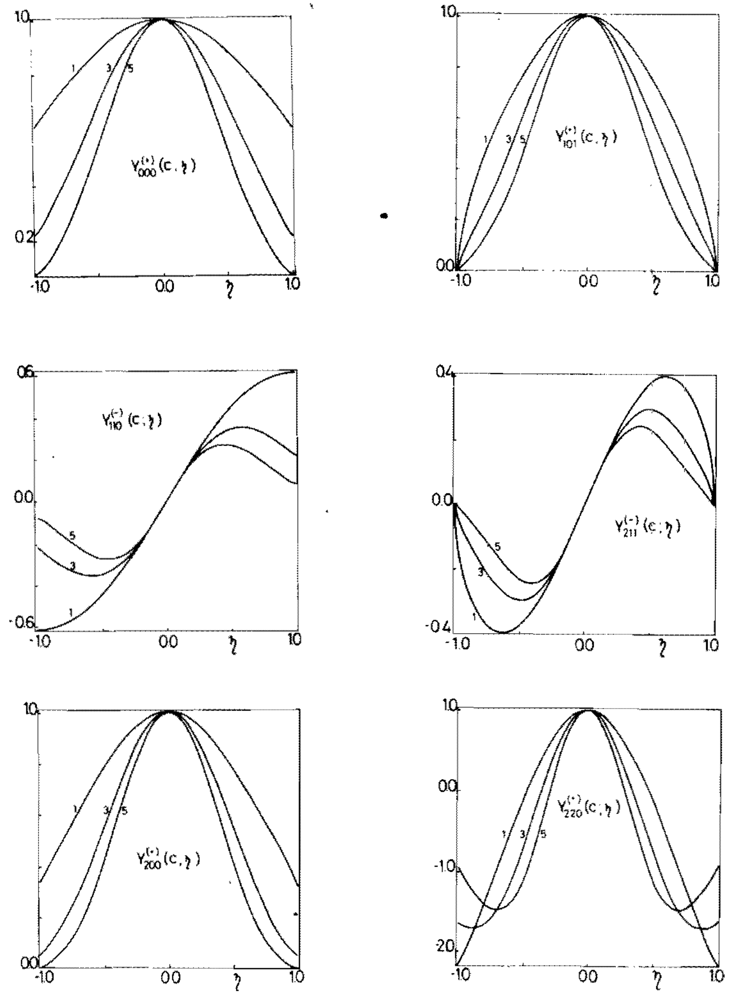

Fig. 1a. Prolate angular spheroidal functions $Y_{nqm}(c;\eta)$ $Y_q(n,m,c;\eta)$, c = 1,3,5

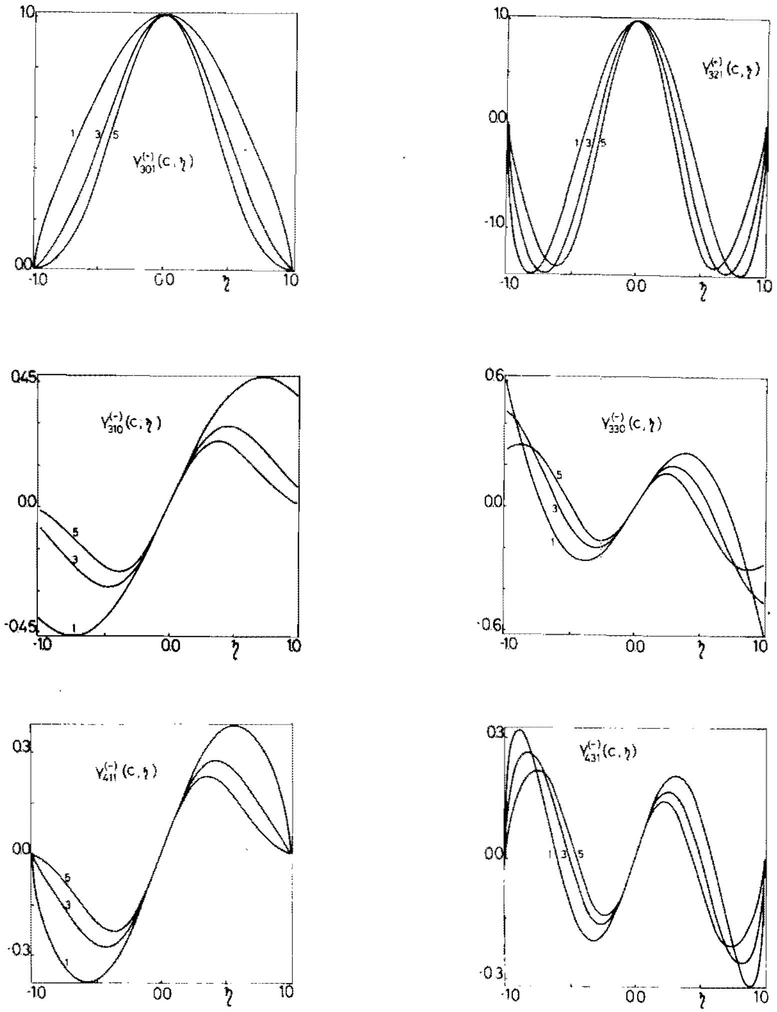

Fig. 1b. Prolate angular spheroidal functions
$Y_{nqm}(c,\eta) \equiv Y_q(n,m,c;\eta)$, c = 1,3,5

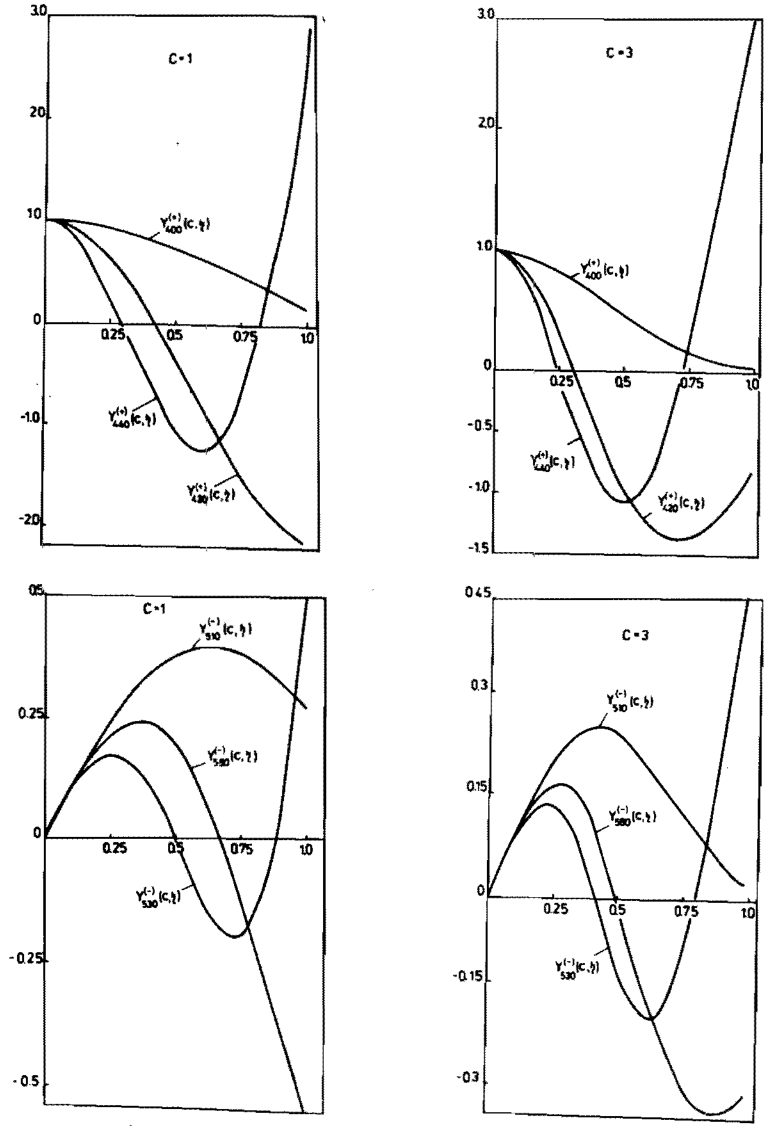

Fig. 1c. Prolate angular spheroidal functions
$Y_{nqm}(c;\eta) \equiv Y_q(n,m,c;\eta)$

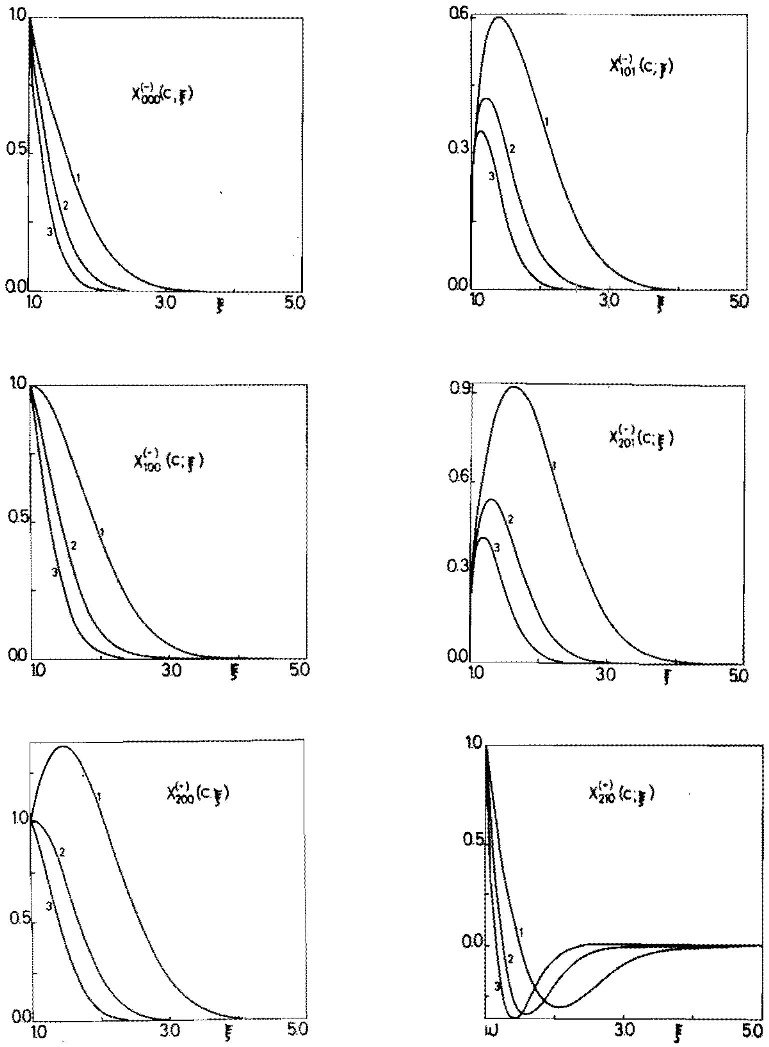

Fig. 2a. Prolate radial spheroidal functions
$X_{nkm}(c;\xi) \equiv X_k(n,m,c;\xi)$; c = 1,2,3

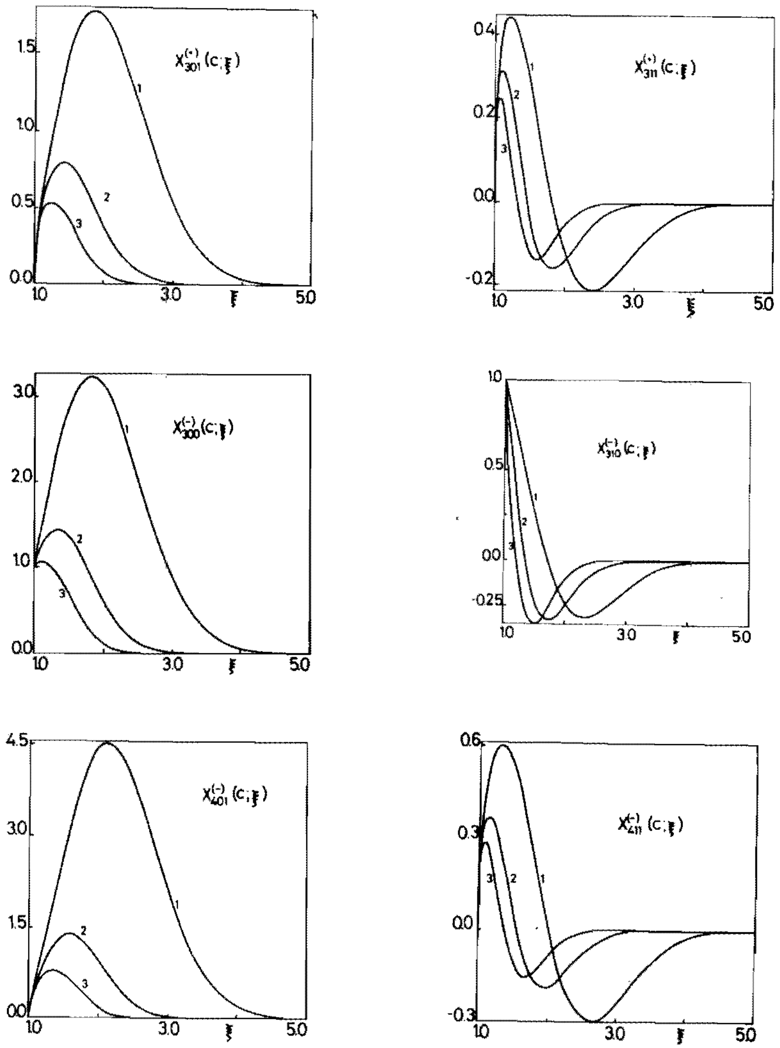

Fig. 2b. Prolate radial spheroidal functions
$X_{nkm}(c;\xi) \equiv X_k(n,m,c;\xi)$; c = 1,2,3

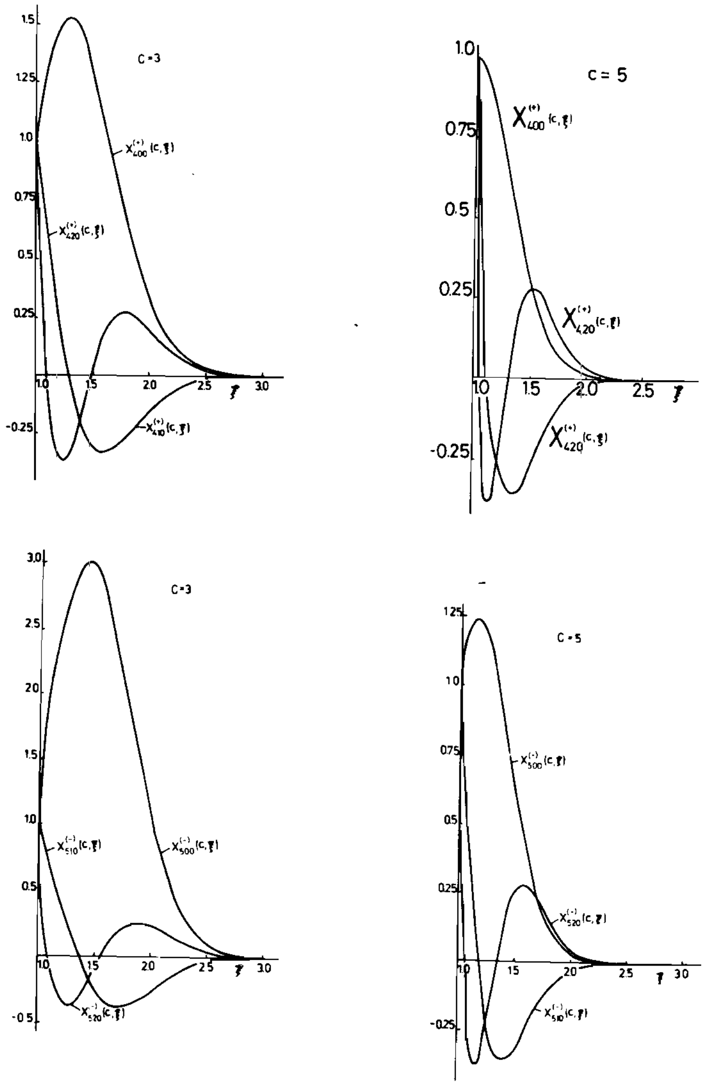

Fig. 2c. Prolate radial spheroidal functions
$X_{nkm}(c;\xi) \equiv X_k(n,m,c;\xi)$

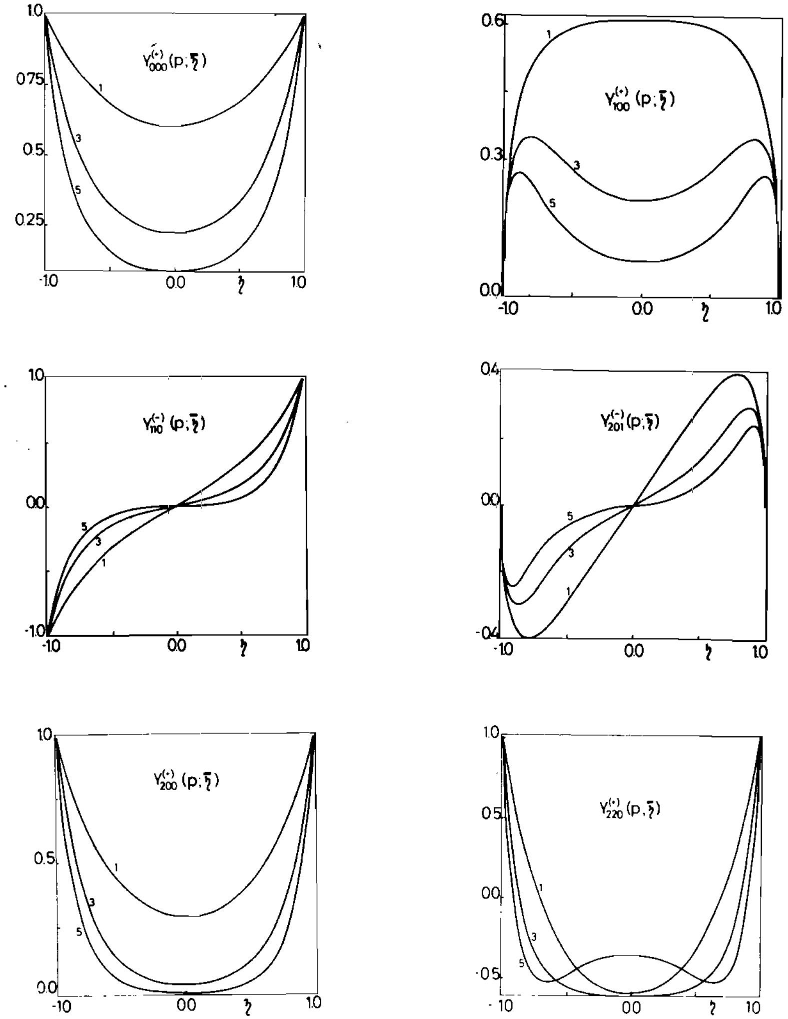

Fig. 3a. Oblate angular spheroidal functions
$Y_{ntm}(p;\bar{\eta}) \equiv \tilde{Y}_t(n,m,p;\bar{\eta})$, $p = 1,3,5$

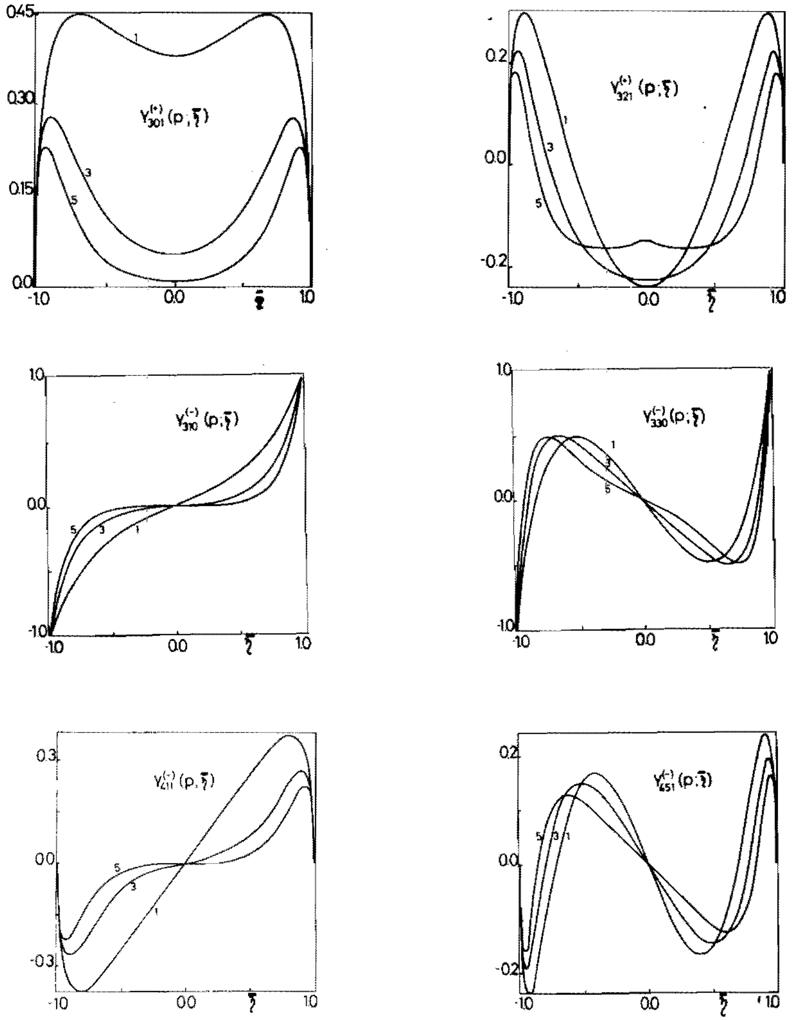

Fig. 3b. Oblate angular spheroidal functions
$Y_{ntm}(p;\bar{\eta}) \cong \tilde{Y}_t(n,m,p;\bar{\eta})$, $p = 1,3,5$

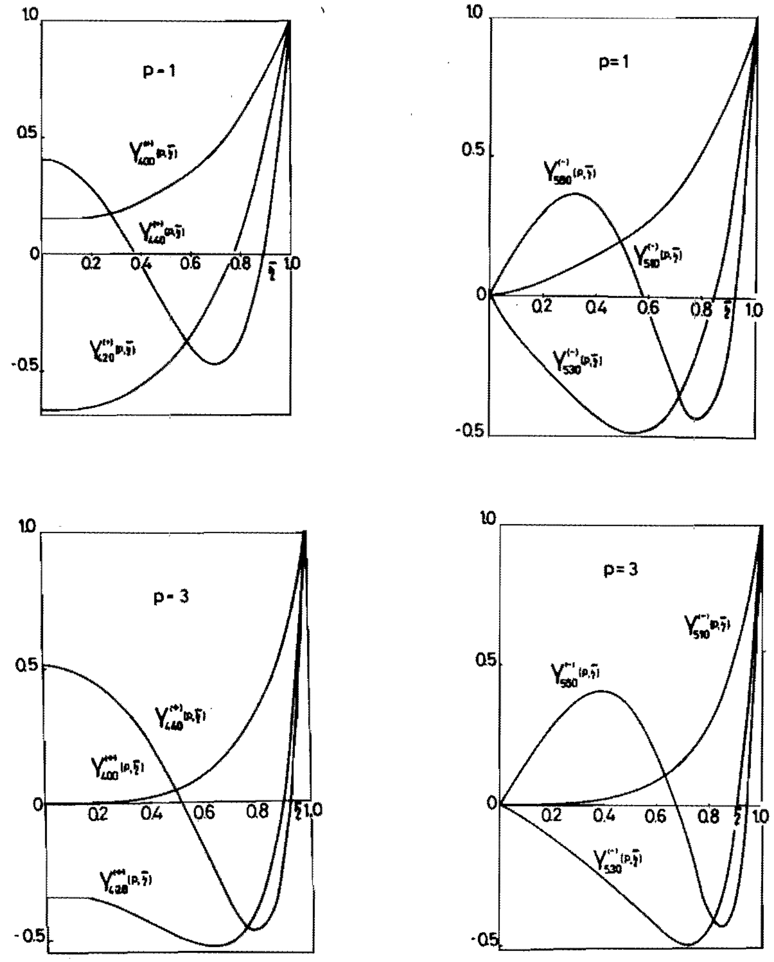

Fig. 3c. Oblate angular spheroidal functions
$Y_{ntm}(p;\bar{\eta}) = \tilde{Y}_t(n,m,p;\bar{\eta})$

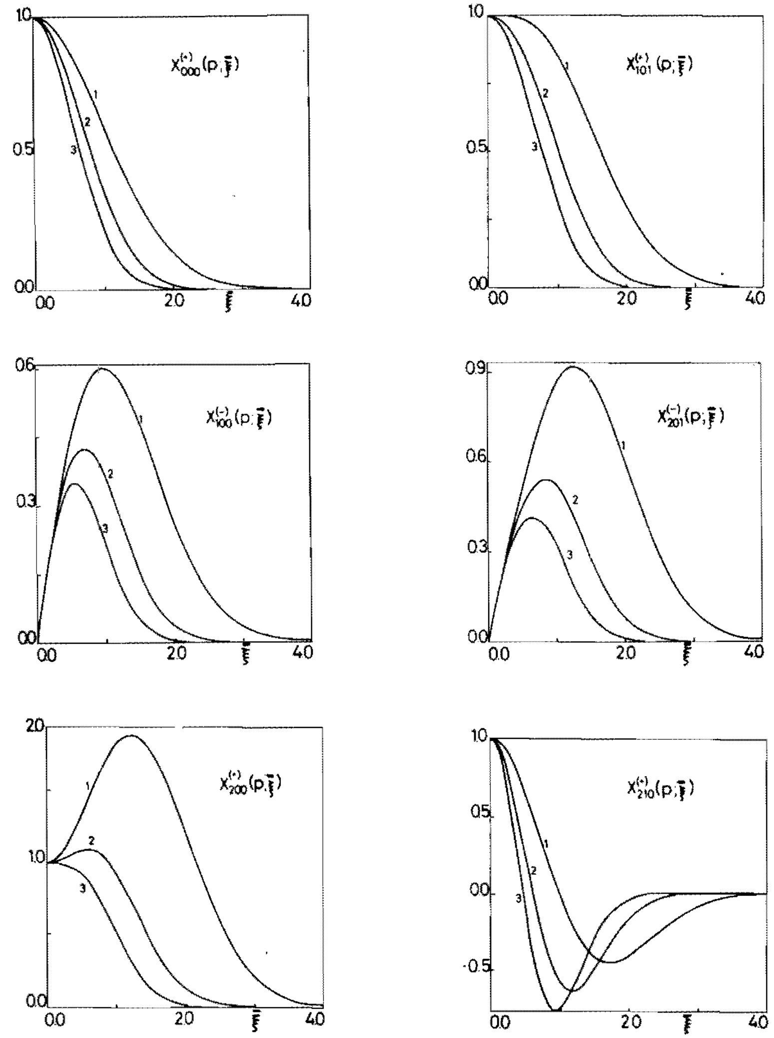

Fig. 4a. Oblate radial spheroidal functions
$X_{nrm}(p;\bar{\xi}) \cong \widetilde{X}_r(n,m,p;\bar{\xi})$; p = 1,2,3

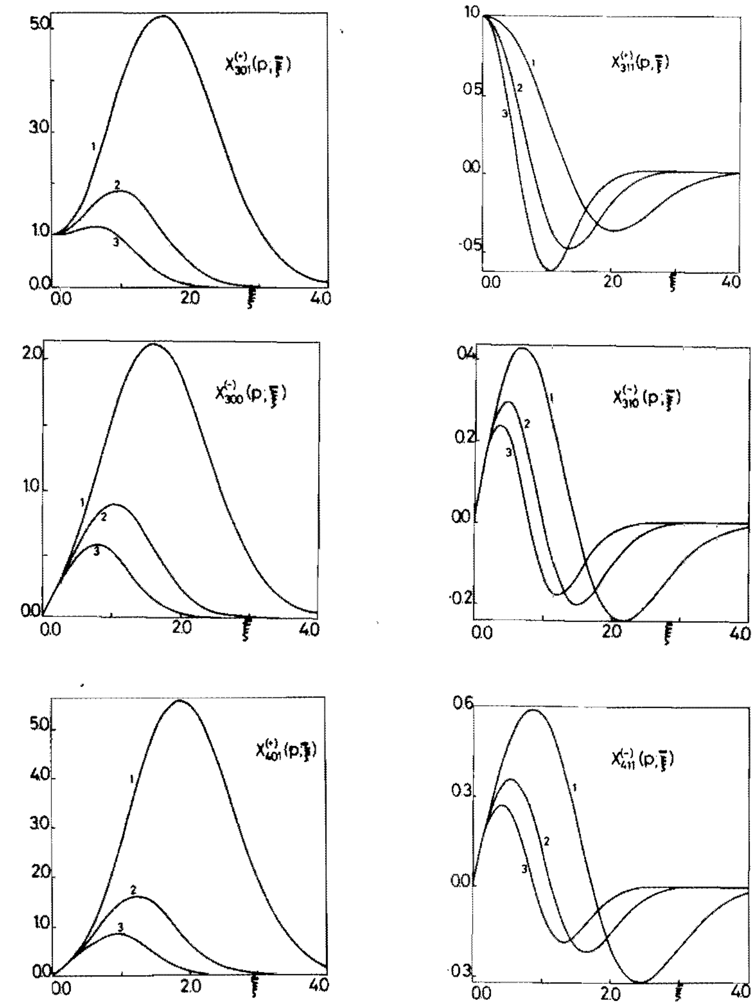

Fig. 4b. Oblate radial spheroidal functions
$X_{nrm}(p;\bar{\xi}) \cong \widetilde{X}_r(n,m,p;\bar{\xi})$; p = 1,2,3

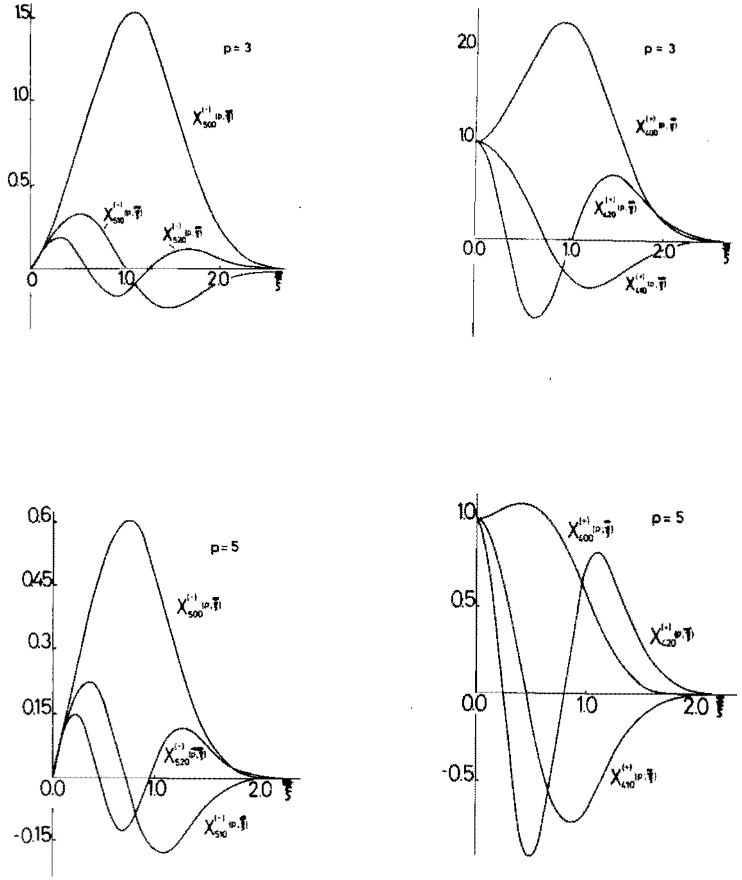

Fig. 4c. Oblate radial spheroidal functions $X_{nrm}(p;\bar{\xi})$ $\widetilde{X}_r(n,m,p;\bar{\xi})$;

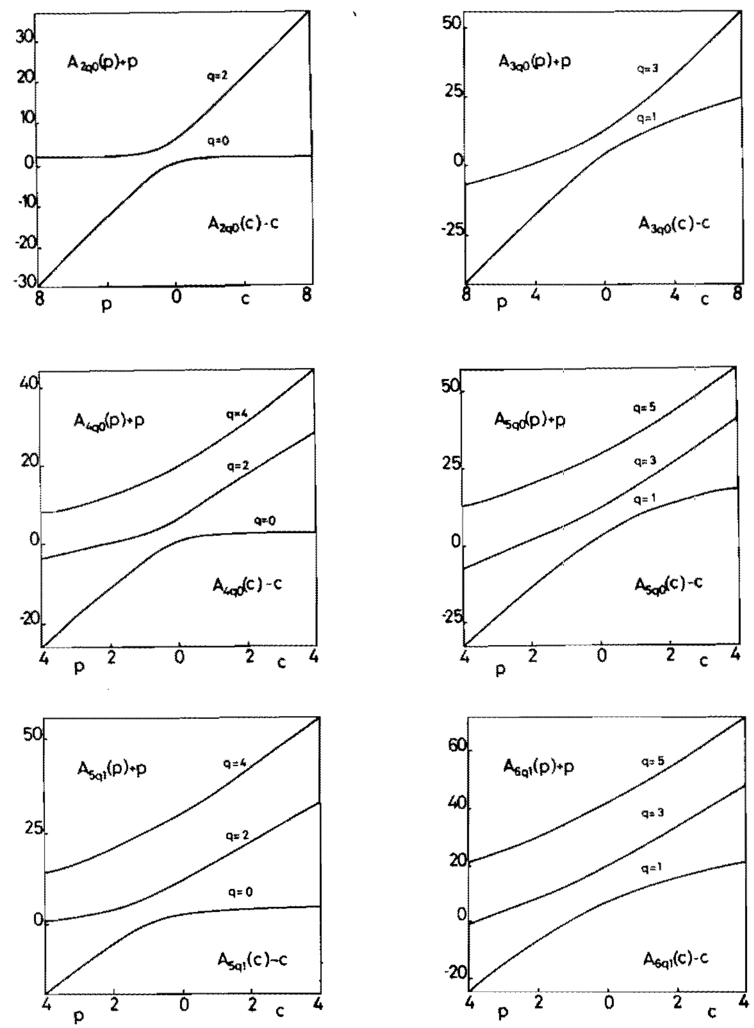

Fig. 5. Eigenvalues of the separation constants $A_{nqm}(c) \equiv A_q(n,m,c)$ and $A_{nqm}(p) \equiv A_q(n,m,p)$

Table 1a. Prolate angular spheroidal functions $Y_0^{(+)}(n,n,c;\eta)$

n	c\η	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
0	1	1.0000	.9950	.9802	.9560	.9231	.8825	.8353	.7827	.7261	.6670	.6065
	2	1.0000	.9900	.9608	.9139	.8521	.7788	.6977	.6126	.5273	.4449	.3679
	3	1.0000	.9851	.9418	.8737	.7866	.6873	.5827	.4795	.3829	.2967	.2231
1	1	1.0000	.9900	.9604	.9120	.8461	.7643	.6682	.5598	.4357	.2907	0.0000
	2	1.0000	.9851	.9414	.8718	.7810	.6745	.5581	.4375	.3164	.1939	0.0000
	3	1.0000	.9802	.9227	.8335	.7210	.5952	.4662	.3424	.2297	.1293	0.0000
2	1	1.0000	.9851	.9410	.8700	.7754	.6619	.5346	.3992	.2614	.1267	0.0000
	2	1.0000	.9801	.9224	.8317	.7158	.5841	.4465	.3124	.1898	.0845	0.0000
	3	1.0000	.9753	.9041	.7951	.6608	.5155	.3730	.2445	.1378	.0564	0.0000
3	1	1.0000	.9801	.9220	.8299	.7107	.5732	.4277	.2851	.1568	.0552	0.0000
	2	1.0000	.9752	.9037	.7934	.6560	.5058	.3572	.2231	.1139	.0368	0.0000
	3	1.0000	.9704	.8850	.7585	.6056	.4464	.2984	.1746	.0827	.0246	0.0000
4	1	1.0000	.9752	.9034	.7917	.6514	.4964	.3421	.2036	.0941	.0241	0.0000
	2	1.0000	.9703	.8855	.7560	.6013	.4381	.2858	.1593	.0683	.0161	0.0000
	3	1.0000	.9655	.8679	.7235	.5550	.3866	.2387	.1247	.0496	.0107	0.0000
5	1	1.0000	.9703	.8851	.7552	.5970	.4299	.2737	.1454	.0565	.0105	0.0000
	2	1.0000	.9655	.8676	.7220	.5511	.3794	.2286	.1138	.0410	.0070	0.0000
	3	1.0000	.9607	.8504	.6902	.5087	.3348	.1910	.0891	.0298	.0047	0.0000
6	1	1.0000	.9655	.8672	.7204	.5471	.3723	.2190	.1038	.0339	.0046	0.0000
	2	1.0000	.9606	.8500	.6887	.5051	.3286	.1829	.0813	.0246	.0031	0.0000
	3	1.0000	.9559	.8332	.6584	.4662	.2900	.1528	.0636	.0179	.0020	0.0000
7	1	1.0000	.9606	.8497	.6872	.5015	.3224	.1752	.0741	.0203	.0020	0.0000
	2	1.0000	.9558	.8329	.6570	.4629	.2845	.1463	.0580	.0148	.0013	0.0000
	3	1.0000	.9511	.8164	.6281	.4273	.2511	.1222	.0454	.0107	.0009	0.0000
8	1	1.0000	.9558	.8325	.6556	.4596	.2792	.1401	.0530	.0122	.0009	0.0000
	2	1.0000	.9510	.8160	.6267	.4243	.2464	.1171	.0414	.0089	.0006	0.0000
	3	1.0000	.9463	.7999	.5992	.3916	.2175	.0978	.0324	.0064	.0004	0.0000
9	1	1.0000	.9510	.8157	.6254	.4212	.2418	.1121	.0378	.0073	.0004	0.0000
	2	1.0000	.9463	.7996	.5979	.3888	.2134	.0936	.0296	.0053	.0003	0.0000
	3	1.0000	.9416	.7837	.5716	.3589	.1883	.0782	.0232	.0039	.0002	0.0000

Table 1b. Prolate angular spheroidal functions $Y_1^{(-)}(n,n-1,c;\eta)$

n	c\η	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
1	1	0.0000	.0995	.1960	.2868	.3692	.4412	.5012	.5479	.5809	.6003	.6065
	2	0.0000	.0990	.1922	.2742	.3409	.3894	.4186	.4288	.4218	.4004	.3679
	3	0.0000	.0985	.1884	.2621	.3147	.3436	.3496	.3357	.3063	.2670	.2231
2	1	0.0000	.0990	.1921	.2736	.3384	.3821	.4009	.3913	.3486	.2617	0.0000
	2	0.0000	.0985	.1883	.2616	.3124	.3372	.3349	.3063	.2531	.1745	0.0000
	3	0.0000	.0980	.1845	.2500	.2884	.2976	.2797	.2397	.1838	.1164	0.0000
3	1	0.0000	.0985	.1882	.2610	.3102	.3309	.3207	.2794	.2091	.1141	0.0000
	2	0.0000	.0980	.1845	.2495	.2863	.2921	.2679	.2187	.1519	.0761	0.0000
	3	0.0000	.0975	.1808	.2385	.2643	.2577	.2238	.1712	.1103	.0507	0.0000
4	1	0.0000	.0980	.1844	.2490	.2843	.2866	.2566	.1995	.1255	.0497	0.0000
	2	0.0000	.0975	.1807	.2380	.2624	.2529	.2143	.1562	.0911	.0332	0.0000
	3	0.0000	.0970	.1772	.2275	.2422	.2232	.1790	.1222	.0662	.0221	0.0000
5	1	0.0000	.0975	.1807	.2375	.2605	.2482	.2053	.1425	.0753	.0217	0.0000
	2	0.0000	.0970	.1771	.2270	.2405	.2190	.1715	.1115	.0547	.0145	0.0000
	3	0.0000	.0965	.1736	.2171	.2220	.1933	.1432	.0873	.0397	.0096	0.0000
6	1	0.0000	.0970	.1770	.2266	.2388	.2149	.1642	.1018	.0452	.0094	0.0000
	2	0.0000	.0965	.1735	.2166	.2204	.1897	.1372	.0797	.0328	.0063	0.0000
	3	0.0000	.0961	.1701	.2071	.2035	.1674	.1146	.0623	.0238	.0042	0.0000
7	1	0.0000	.0965	.1734	.2161	.2189	.1862	.1314	.0727	.0271	.0041	0.0000
	2	0.0000	.0961	.1700	.2066	.2020	.1643	.1097	.0569	.0197	.0027	0.0000
	3	0.0000	.0956	.1666	.1975	.1865	.1450	.0917	.0445	.0143	.0018	0.0000
8	1	0.0000	.0961	.1699	.2062	.2006	.1612	.1051	.0519	.0163	.0018	0.0000
	2	0.0000	.0956	.1666	.1971	.1852	.1423	.0878	.0406	.0118	.0012	0.0000
	3	0.0000	.0951	.1633	.1884	.1709	.1256	.0733	.0318	.0086	.0008	0.0000
9	1	0.0000	.0956	.1665	.1967	.1838	.1396	.0841	.0371	.0098	.0008	0.0000
	2	0.0000	.0951	.1632	.1880	.1697	.1232	.0702	.0290	.0071	.0005	0.0000
	3	0.0000	.0946	.1600	.1797	.1567	.1087	.0587	.0227	.0051	.0003	0.0000
10	1	0.0000	.0951	.1631	.1875	.1685	.1209	.0673	.0265	.0059	.0003	0.0000
	2	0.0000	.0946	.1599	.1794	.1555	.1067	.0562	.0207	.0043	.0002	0.0000
	3	0.0000	.0942	.1567	.1715	.1436	.0942	.0469	.0162	.0031	.0002	0.0000

Table 1c. Prolate angular spheroidal functions $Y_q^{(+)}(n,n-2,c;\eta)$

n	q	c\η	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
2	0	1	1.0000	.9906	.9630	.9183	.8584	.7858	.7034	.6145	.5224	.4301	.3406
		2	1.0000	.9838	.9367	.8623	.7666	.6566	.5400	.4242	.3155	.2187	.1370
		3	1.0000	.9780	.9145	.8167	.6954	.5627	.4306	.3091	.2052	.1224	.0613
2	2	1	1.0000	.9496	.8013	.5635	.2494	-.1239	-.5364	-.9668	-1.3938	-1.7974	-2.1602
		2	1.0000	.9273	.7159	.3898	-.0167	-.4619	-.9028	-1.3002	-1.6231	-1.8513	-1.9764
		3	1.0000	.9036	.6300	.2230	-.2549	-.7345	-1.1532	-1.4647	-1.6449	-1.6920	-1.6233
3	0	1	1.0000	.9871	.9489	.8875	.8057	.7372	.5964	.4772	.3525	.2204	0.0000
		2	1.0000	.9835	.9237	.8350	.7224	.5954	.4639	.3370	.2214	.1203	0.0000
		3	1.0000	.9745	.9015	.7903	.6546	.5096	.3696	.2459	.1451	.0690	0.0000
3	2	1	1.0000	.9237	.7029	.3619	-.0611	-.5162	-.9439	-1.2765	-1.4330	-1.2874	0.0000
		2	1.0000	.9013	.6201	.2024	-.2851	-.7640	-1.1560	-1.3914	-1.4110	-1.1460	0.0000
		3	1.0000	.8783	.5380	.0515	-.4815	-.9560	-1.2833	-1.4067	-1.3030	-.9627	0.0000
4	0	1	1.0000	.9828	.9324	.8521	.7471	.6241	.4907	.3546	.2233	.1033	0.0000
		2	1.0000	.9765	.9085	.8035	.6727	.5291	.3860	.2548	.1441	.0587	0.0000
		3	1.0000	.9706	.8868	.7608	.6101	.4537	.3086	.1871	.0956	.0345	0.0000
4	2	1	1.0000	.8987	.6108	.1831	-.3129	-.7896	-1.1536	-1.3166	-1.2062	-.7737	0.0000
		2	1.0000	.8763	.5304	.0365	-.5009	-.9672	-1.2612	-1.3140	-1.1008	-.6428	0.0000
		3	1.0000	.8532	.4513	-.1009	-.6630	-1.0980	-1.3081	-1.2558	-.9667	-.5154	0.0000
5	0	1	1.0000	.9783	.9152	.8161	.6897	.5467	.3992	.2592	.1383	.0470	0.0000
		2	1.0000	.9722	.8923	.7709	.6229	.4660	.3167	.1886	.0909	.0274	0.0000
		3	1.0000	.9664	.8713	.7304	.5658	.4805	.2542	.1394	.0609	.0164	0.0000
5	2	1	1.0000	.8741	.5231	.0221	-.5191	-.9766	-1.2374	-1.2256	-.9288	-.4287	0.0000
		2	1.0000	.8515	.4452	-.1124	-.6754	-1.0983	-1.2740	-1.1637	-.8107	-.3417	0.0000
		3	1.0000	.8288	.3689	-.2374	-.8080	-1.1817	-1.2686	-1.0738	-.6895	-.2658	0.0000
6	0	1	1.0000	.9737	.8977	.7806	.6351	.4771	.3229	.1880	.0847	.0210	0.0000
		2	1.0000	.9677	.8758	.7383	.5751	.4083	.2578	.1381	.0565	.0125	0.0000
		3	1.0000	.9620	.8554	.7000	.5230	.3517	.2077	.1027	.0382	.0076	0.0000
6	2	1	1.0000	.8500	.4392	-.1235	-.6872	-1.0976	-1.2398	-1.0777	-.6795	-.2264	0.0000
		2	1.0000	.8274	.3638	-.2464	-.8157	-1.1750	-1.2294	-.9986	-.5758	-.1755	0.0000
		3	1.0000	.8049	.2903	-.3600	-.9227	-1.2216	-1.1911	-.8922	-.4788	-.1337	0.0000

Table 1d. Prolate angular spheroidal functions $Y_q(n,n-3,c;\eta)$

n	q	c\η	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
3	1	1	0.0000	.0992	.1934	.2782	.3496	.4045	.4410	.4584	.4570	.4382	.4044
		2	0.0000	.0985	.1880	.2608	.3113	.3366	.3368	.3148	.2754	.2244	.1683
		3	0.0000	.0979	.1833	.2464	.2811	.2864	.2657	.2260	.1756	.1228	.0744
3	3	1	0.0000	.0975	.1804	.2352	.2511	.2206	.1403	.0110	-.1627	-.3722	-.6065
		2	0.0000	.0966	.1733	.2135	.2068	.1502	.0483	-.0875	-.2416	-.3966	-.5362
		3	0.0000	.0956	.1658	.1913	.1636	.0859	-.0280	-.1578	-.2818	-.3819	-.4463
4	1	1	0.0000	.0988	.1902	.2676	.3253	.3590	.3660	.3449	.2946	.2104	0.0000
		2	0.0000	.0981	.1852	.2519	.2919	.3027	.2855	.2448	.1868	.1167	0.0000
		3	0.0000	.0975	.1807	.2382	.2641	.2585	.2268	.1780	.1220	.0669	0.0000
4	3	1	0.0000	.0963	.1709	.2057	.1891	.1186	.0028	-.1376	-.2668	-.3229	0.0000
		2	0.0000	.0953	.1637	.1849	.1496	.0626	-.0578	-.1826	-.2745	-.2859	0.0000
		3	0.0000	.0943	.1564	.1643	.1127	.0143	-.1038	-.2076	-.2641	-.2426	0.0000
5	1	1	0.0000	.0983	.1868	.2565	.3006	.3151	.2986	.2532	.1835	.0963	0.0000
		2	0.0000	.0977	.1820	.2420	.2710	.2677	.2358	.1830	.1195	.0555	0.0000
		3	0.0000	.0971	.1776	.2291	.2458	.2295	.1885	.1344	.0793	.0327	0.0000
5	3	1	0.0000	.0951	.1620	.1794	.1377	.0435	-.0805	-.1963	-.2560	-.2070	0.0000
		2	0.0000	.0941	.1550	.1597	.1031	0.0000	-.1179	-.2100	-.2369	-.1704	0.0000
		3	0.0000	.0931	.1478	.1406	.0714	-.0362	-.1437	-.2114	-.2117	-.1367	0.0000
6	1	1	0.0000	.0979	.1832	.2454	.2770	.2752	.2418	.1839	.1127	.0433	0.0000
		2	0.0000	.0972	.1787	.2320	.2505	.2351	.1925	.1346	.0746	.0256	0.0000
		3	0.0000	.0967	.1745	.2198	.2276	.2021	.1546	.0996	.0501	.0153	0.0000
6	3	1	0.0000	.0939	.1536	.1554	.0944	-.0124	-.1289	-.2085	-.2097	-.1184	0.0000
		2	0.0000	.0929	.1466	.1370	.0644	-.0454	-.1497	-.2048	-.1840	-.0935	0.0000
		3	0.0000	.0919	.1397	.1192	.0373	-.0719	-.1618	-.1945	-.1578	-.0726	0.0000
7	1	1	0.0000	.0974	.1797	.2346	.2548	.2397	.1951	.1329	.0687	.0193	0.0000
		2	0.0000	.0968	.1754	.2220	.2310	.2056	.1563	.0981	.0461	.0116	0.0000
		3	0.0000	.0962	.1713	.2105	.2102	.1772	.1260	.0730	.0312	.0070	0.0000
7	3	1	0.0000	.0928	.1455	.1336	.0578	-.0535	-.1541	-.1971	-.1590	-.0637	0.0000
		2	0.0000	.0918	.1387	.1163	.0319	-.0778	-.1631	-.1847	-.1350	-.0490	0.0000
		3	0.0000	.0908	.1319	.0998	.0089	-.1967	-.1661	-.1694	-.1127	-.0372	0.0000

Table 1e. Prolate angular spheroidal functions $Y_q^{(+)}(n,n-4,c;\eta)$

n	q	c\η	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
4	4	1	1.0000	.3727	.5171	.0092	-.5352	-.9751	-1.1624	-.9600	-.2598	1.0040	2.8460
		2	1.0000	.3411	.4083	-.1765	-.7416	-1.1049	-1.1138	-.6789	.2085	1.4757	2.9850
		3	1.0000	.3065	.2942	-.3563	-.9094	-1.1493	-.9452	-.2862	.7223	1.9345	3.0190
		4	1.0000	.2731	.1784	-.5223	-1.0285	-1.1072	-.6798	.1606	1.1973	2.1767	2.8918
		5	1.0000	.7323	.0643	-.6681	-1.0958	-.9902	-.3555	.5978	1.5661	2.2841	2.6125
4	2	1	1.0000	.9373	.7565	.4710	.1050	-.3117	-.7461	-1.1645	-1.5358	-1.8340	-2.0401
		2	1.0000	.9049	.6345	.2308	-.2450	-.7232	-1.1380	-1.4374	-1.5905	-1.5904	-1.4521
		3	1.0000	.8744	.5255	.0297	-.5084	-.9826	-1.3098	-1.4464	-1.3927	-1.1856	-.8842
		4	1.0000	.8462	.4284	-.1381	-.7052	-1.1388	-1.3569	-1.3446	-1.1462	-.8401	-.5099
		5	1.0000	.8133	.3403	-.2810	-.8543	-1.2282	-1.3369	-1.2053	-.9205	-.5874	-.2906
4	0	1	1.0000	.9873	.9498	.8838	.8107	.7169	.6135	.5057	.3987	.2972	.2050
		2	1.0000	.9793	.9192	.8260	.7089	.5788	.4468	.3229	.2146	.1268	.0613
		3	1.0000	.9727	.8946	.7767	.6345	.4853	.3446	.2240	.1299	.0635	.0222
		4	1.0000	.9667	.8727	.7343	.5738	.4138	.2727	.1614	.0831	.0345	.0090
		5	1.0000	.9611	.8525	.6964	.5218	.3562	.2190	.1189	.0549	.0197	.0039
5	4	1	1.0000	.8264	.3580	-.2596	-.8196	-1.1030	-.9384	-.2687	.7697	1.6989	0.0000
		2	1.0000	.7970	.2494	-.4237	-.9556	-1.1022	-.7338	.0996	1.1313	1.9230	0.0000
		3	1.0000	.7530	.1431	-.5735	-1.0474	-1.0305	-.4639	.4801	1.4298	1.8560	0.0000
		4	1.0000	.7213	.0325	-.7051	-1.0941	-.8985	-.1570	.8341	1.6381	1.7991	0.0000
		5	1.0000	.6843	-.0717	-.8165	-1.0981	-.7208	.1592	1.1332	1.7481	1.6694	0.0000
5	2	1	1.0000	.9146	.6694	.2963	-.1554	-.6239	-1.0406	-1.3342	-1.4300	-1.2260	0.0000
		2	1.0000	.8843	.5601	.0910	-.4319	-.9090	-1.2515	-1.3957	-1.3088	-.9733	0.0000
		3	1.0000	.8554	.4594	-.0864	-.6468	-1.0914	-1.3289	-1.3256	-1.1039	-.7175	0.0000
		4	1.0000	.8233	.3663	-.2333	-.8119	-1.1998	-1.3256	-1.1987	-.8942	-.5107	0.0000
		5	1.0000	.8017	.2813	-.3729	-.9393	-1.2565	-1.2762	-1.0545	-.7092	-.3577	0.0000
5	0	1	1.0000	.9845	.9389	.8664	.7715	.6601	.5388	.4139	.2907	.1708	0.0000
		2	1.0000	.9755	.9031	.8053	.6765	.5359	.3966	.2697	.1626	.0792	0.0000
		3	1.0000	.9699	.8842	.7561	.6041	.4479	.3047	.1865	.0987	.0405	0.0000
		4	1.0000	.9637	.8620	.7138	.5447	.3802	.2396	.1333	.0626	.0220	0.0000
		5	1.0000	.9590	.8415	.6760	.4941	.3259	.1912	.0974	.0409	.0124	0.0000
6	4	1	1.0000	.7823	.2148	-.4719	-.9767	-1.0331	-.5245	.4185	1.3594	1.5524	0.0000
		2	1.0000	.7481	.1102	-.6086	-1.0435	-.9306	-.2408	.7609	1.5558	1.4994	0.0000
		3	1.0000	.7129	.0073	-.7282	-1.0703	-.7803	.0598	1.0587	1.6663	1.3925	0.0000
		4	1.0000	.6770	-.0926	-.8293	-1.0593	-.5941	.3571	1.2971	1.6966	1.2500	0.0000
		5	1.0000	[illegible]	-.1883	-.9110	-1.0147	-.3848	.6345	1.4695	1.6593	1.0894	0.0000
6	2	1	1.0000	.3942	.5846	.1358	-.3717	-.8402	-1.1729	-1.2888	-1.1356	-.6978	0.0000
		2	1.0000	.3654	.4836	-.1431	-.5896	-1.0260	-1.2530	-1.2240	-.9543	-.5122	0.0000
		3	1.0000	.3345	.3895	-.1995	-.7598	-1.1394	-1.2536	-1.1042	-.7677	-.3610	0.0000
		4	1.0000	.3073	.3023	-.3359	-.8909	-1.1999	-1.2069	-.9664	-.6024	-.2488	0.0000
		5	1.0000	.7813	.2232	-.4563	-.9905	-1.2227	-1.1340	-.8301	-.4656	-.1693	0.0000
6	0	1	1.0000	.9813	.9250	.8362	.7284	.6348	.4761	.3492	.2261	.1128	0.0000
		2	1.0000	.9732	.8972	.7836	.6485	.5086	.3772	.2619	.1639	.0790	0.0000
		3	1.0000	.9666	.8733	.7333	.5857	.4377	.3095	.2063	.1254	.0591	0.0000
		4	1.0000	.9605	.8517	.6939	.5334	.3820	.2591	.1669	.0986	.0451	0.0000
		5	1.0000	.9547	.8316	.6635	.4885	.3362	.2197	.1370	.0783	.0344	0.0000
7	4	1	1.0000	.7314	.0826	-.6457	-1.0578	-.8810	-.1175	.8810	1.4894	1.1060	0.0000
		2	1.0000	.7048	-.0175	-.7534	-1.0770	-.7309	.1575	1.1164	1.5272	.9949	0.0000
		3	1.0000	.6636	-.1147	-.8551	-1.0608	-.5489	.4275	1.3010	1.5099	.8726	0.0000
		4	1.0000	.6333	-.2081	-.9326	-1.0131	-.3463	.6781	1.4302	1.4468	.7477	0.0000
		5	1.0000	.5981	-.2968	-.9919	-.9385	-.1338	.8993	1.5050	1.3497	.6273	0.0000
7	2	1	1.0000	.8678	.5010	-.1168	-.5657	-1.0149	-1.2518	-1.2100	-.8938	-.4010	0.0000
		2	1.0000	.8398	.4056	-.1781	-.7467	-1.1447	-1.2723	-1.1131	-.7391	-.2948	0.0000
		3	1.0000	.8128	.3162	-.3201	-.8879	-1.2183	-1.2386	-.9884	-.5928	-.2108	0.0000
		4	1.0000	.7855	.2324	-.4447	-.9962	-1.2504	-1.1729	-.8581	-.4665	-.1481	0.0000
		5	1.0000	.7610	.1536	-.5541	-1.0776	-1.2526	-1.0900	-.7338	-.3626	-.1031	0.0000
7	0	1	1.0000	.9756	.9087	.8032	.6702	.5226	.3738	.2367	.1225	.0401	0.0000
		2	1.0000	.9693	.8820	.7507	.5939	.4319	.2832	.1613	.0736	.0208	0.0000
		3	1.0000	.9623	.8582	.7058	.5318	.3628	.2196	.1135	.0460	.0112	0.0000
		4	1.0000	.9557	.8366	.6662	.4795	.3081	.1730	.0816	.0295	.0063	0.0000
		5	1.0000	.9503	.8164	.6304	.4344	.2637	.1378	.0595	.0194	.0036	0.0000

Table 1f. Prolate angular spheroidal functions $Y_q^{(-)}(n,n-5,c;\eta)$

n	q	c\η	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
5	5	1	0.0000	.0943	.1560	.1616	.1041	-.0028	-.1229	-.2012	-.1694	.0444	.5063
		2	0.0000	.0931	.1475	.1387	.0657	-.0458	-.1494	-.1890	-.1137	.1087	.4828
		3	0.0000	.0918	.1385	.1156	.0300	-.0803	-.1608	-.1605	-.0502	.1674	.4590
		4	0.0000	.0904	.1292	.0927	-.0021	-.1052	-.1578	-.1194	.0151	.2152	.4294
		5	0.0000	.0869	.1196	.0706	-.0298	-.1204	-.1424	-.0710	.0750	.2465	.3895
5	3	1	0.0000	.0971	.1774	.2261	.2321	.1896	.0984	-.0361	-.2031	-.3886	-.5761
		2	0.0000	.0958	.1672	.1955	.1710	.0958	-.0180	-.1504	-.2785	-.3811	-.4429
		3	0.0000	.0944	.1572	.1667	.1177	.0222	-.0951	-.2050	-.2825	-.3129	-.2948
		4	0.0000	.0930	.1478	.1411	.0739	-.0310	-.1393	-.2190	-.2509	-.2334	-.1792
		5	0.0000	.0918	.1391	.1187	.0387	-.0682	-.1614	-.2114	-.2095	-.1667	-.1043
5	1	1	0.0000	.0989	.1911	.2707	.3328	.3739	.3926	.3891	.3654	.3249	.2720
		2	0.0000	.0980	.1847	.2504	.2892	.2989	.2820	.2439	.1926	.1364	.0828
		3	0.0000	.0973	.1795	.2348	.2575	.2485	.2147	.1661	.1135	.0660	.0292
		4	0.0000	.0967	.1750	.2216	.2321	.2108	.1685	.1182	.0713	.0349	.0115
		5	0.0000	.0962	.1708	.2099	.2106	.1808	.1345	.0863	.0465	.0195	.0048
6	5	1	0.0000	.0924	.1425	.1247	.0415	-.0723	-.1575	-.1494	-.0106	.2112	0.0000
		2	0.0000	.0911	.1337	.1027	.0098	-.0981	-.1563	-.1120	.0422	.2284	0.0000
		3	0.0000	.0897	.1247	.0814	-.0181	-.1151	-.1442	-.0691	.0891	.2354	0.0000
		4	0.0000	.0883	.1156	.0611	-.0417	-.1239	-.1236	-.0247	.1271	.2323	0.0000
		5	0.0000	.0868	.1066	.0420	-.0608	-.1252	-.0972	.0174	.1544	.2203	0.0000
6	3	1	0.0000	.0959	.1685	.1985	.1752	.0983	-.0202	-.1560	-.2720	-.3104	0.0000
		2	0.0000	.0947	.1591	.1715	.1251	.0296	-.0903	-.2015	-.2682	-.2539	0.0000
		3	0.0000	.0934	.1499	.1464	.0818	-.0233	-.1344	-.2155	-.2399	-.1940	0.0000
		4	0.0000	.0921	.1412	.1237	.0456	-.0621	-.1583	-.2097	-.2023	-.1418	0.0000
		5	0.0000	.0909	.1329	.1033	.0156	-.0896	-.1682	-.1935	-.1648	-.1010	0.0000
6	1	1	0.0000	.0985	.1885	.2622	.3135	.3386	.3359	.3061	.2509	.1705	0.0000
		2	0.0000	.0973	.1825	.2437	.2749	.2750	.2476	.2001	.1417	.0804	0.0000
		3	0.0000	.0971	.1774	.2285	.2449	.2290	.1892	.1374	.0852	.0408	0.0000
		4	0.0000	.0964	.1728	.2154	.2204	.1937	.1480	.0976	.0535	.0219	0.0000
		5	0.0000	.0958	.1687	.2038	.1995	.1655	.1176	.0708	.0347	.0123	0.0000
7	5	1	0.0000	.0905	.1300	.0929	-.0049	-.1085	-.1462	-.0691	.0998	.2195	0.0000
		2	0.0000	.0892	.1212	.0727	-.0297	-.1202	-.1289	-.0283	.1308	.2086	0.0000
		3	0.0000	.0878	.1124	.0536	-.0504	-.1246	-.1056	.0111	.1531	.1929	0.0000
		4	0.0000	.0864	.1037	.0357	-.0670	-.1226	-.0785	.0467	.1665	.1738	0.0000
		5	0.0000	.0843	.0950	.0192	-.0795	-.1154	-.0498	.0767	.1715	.1528	0.0000
7	3	1	0.0000	.0948	.1600	.1736	.1273	.0299	-.0928	-.1018	-.2511	-.1955	0.0000
		2	0.0000	.0935	.1511	.1492	.0853	-.0210	-.1337	-.2119	-.2223	-.1494	0.0000
		3	0.0000	.0923	.1425	.1266	.0492	-.0595	-.1569	-.2055	-.1876	-.1101	0.0000
		4	0.0000	.0911	.1342	.1061	.0189	-.0874	-.1669	-.1897	-.1531	-.0791	0.0000
		5	0.0000	.0899	.1263	.0874	-.0063	-.1068	-.1680	-.1695	-.1222	-.0558	0.0000
7	1	1	0.0000	.0981	.1854	.2523	.2918	.3006	.2788	.2302	.1616	.0817	0.0000
		2	0.0000	.0974	.1798	.2353	.2577	.2470	.2094	.1549	.0954	.0412	0.0000
		3	0.0000	.0967	.1748	.2209	.2302	.2066	.1613	.1078	.0587	.0218	0.0000
		4	0.0000	.0961	.1704	.2084	.2072	.1750	.1265	.0769	.0372	.0120	0.0000
		5	0.0000	.0955	.1662	.1971	.1875	.1494	.1004	.0558	.0242	.0068	0.0000
8	5	1	0.0000	.0883	.1183	.0654	-.0389	-.1225	-.1132	.0054	.1529	.1697	0.0000
		2	0.0000	.0874	.1097	.0472	-.0574	-.1236	-.0884	.0396	.1638	.1509	0.0000
		3	0.0000	.0860	.1011	.0302	-.0719	-.1192	-.0613	.0692	.1676	.1317	0.0000
		4	0.0000	.0846	.0927	.0146	-.0827	-.1104	-.0337	.0933	.1654	.1127	0.0000
		5	0.0000	.0831	.0844	.0004	-.0900	-.0981	-.0070	.1114	.1583	.0948	0.0000
8	3	1	0.0000	.0937	.1519	.1507	.0866	-.0214	-.1351	-.2083	-.2031	-.1114	0.0000
		2	0.0000	.0924	.1434	.1285	.0511	-.0589	-.1565	-.2003	-.1706	-.0822	0.0000
		3	0.0000	.0912	.1352	.1080	.0209	-.0865	-.1559	-.1843	-.1391	-.0592	0.0000
		4	0.0000	.0900	.1273	.0893	-.0045	-.1059	-.1668	-.1646	-.1111	-.0420	0.0000
		5	0.0000	.0889	.1197	.0722	-.0256	-.1189	-.1620	-.1439	-.0874	-.0294	0.0000
8	1	1	0.0000	.0977	.1821	.2420	.2702	.2645	.2283	.1699	.1014	.0378	0.0000
		2	0.0000	.0970	.1768	.2264	.2399	.2193	.1739	.1168	.0617	.0199	0.0000
		3	0.0000	.0963	.1720	.2129	.2148	.1843	.1350	.0822	.0387	.0109	0.0000
		4	0.0000	.0957	.1677	.2008	.1936	.1564	.1062	.0590	.0248	.0061	0.0000
		5	0.0000	.0951	.1636	.1900	.1752	.1337	.0845	.0430	.0162	.0035	0.0000

Table 2a. Prolate radial spheroidal functions $X_o^{(+)}(n,n,c;\bar{\xi})$

n	c\ξ	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0
0	1	1.000	.803	.619	.458	.326	.223	.147	.093	.056	.033	.018
	2	1.000	.644	.383	.210	.106	.050	.021	.009	.003	.001	.000
	3	1.000	.517	.237	.096	.035	.011	.003	.001	.000	.000	.000
1	1	0.000	.532	.606	.573	.488	.386	.287	.202	.135	.086	.052
	2	0.000	.427	.375	.262	.159	.086	.042	.019	.008	.003	.001
	3	0.000	.343	.232	.120	.052	.019	.006	.002	.000	.000	.000
2	1	0.000	.353	.594	.715	.731	.669	.563	.441	.323	.224	.147
	2	0.000	.283	.368	.328	.238	.149	.083	.041	.018	.007	.003
	3	0.000	.227	.227	.150	.078	.033	.012	.004	.001	.000	.000
3	1	0.000	.234	.582	.893	1.094	1.159	1.103	.961	.776	.585	.414
	2	0.000	.188	.360	.409	.357	.259	.162	.089	.044	.019	.008
	3	0.000	.151	.223	.188	.116	.058	.024	.008	.002	.001	.000
4	1	0.000	.155	.570	1.116	1.637	2.088	2.162	2.097	1.862	1.530	1.172
	2	0.000	.125	.353	.511	.534	.448	.317	.194	.105	.050	.021
	3	0.000	.100	.218	.234	.174	.100	.046	.018	.006	.002	.000
5	1	0.000	.103	.559	1.393	2.450	3.478	4.236	4.575	4.470	4.003	3.315
	2	0.000	.083	.346	.639	.799	.776	.621	.423	.251	.131	.061
	3	0.000	.066	.214	.293	.261	.173	.091	.039	.014	.004	.001
6	1	0.000	.068	.547	1.740	3.667	6.025	8.301	9.982	10.728	10.468	9.378
	2	0.000	.055	.339	.798	1.197	1.344	1.217	.924	.602	.342	.172
	3	0.000	.044	.210	.366	.390	.300	.178	.085	.034	.011	.003
7	1	0.000	.045	.536	2.174	5.489	10.435	16.267	21.777	25.746	27.378	26.524
	2	0.000	.036	.332	.996	1.791	2.328	2.385	2.015	1.445	.896	.486
	3	0.000	.029	.205	.457	.584	.520	.350	.187	.081	.029	.009
8	1	0.000	.030	.526	2.715	8.215	18.074	31.877	47.512	61.791	71.604	75.021
	2	0.000	.024	.325	1.245	2.680	4.033	4.673	4.397	3.469	2.342	1.374
	3	0.000	.019	.201	.578	.875	.900	.685	.407	.195	.077	.025
9	1	0.000	.020	.515	3.391	12.294	31.304	62.466	103.660	148.297	187.269	212.191
	2	0.000	.016	.319	1.554	4.011	6.985	9.158	9.594	8.325	6.126	3.806
	3	0.000	.013	.197	.713	1.309	1.559	1.343	.888	.467	.200	.071

Table 2b. Prolate radial spheroidal functions $X_o^{(-)}(n,n-1,c;\xi)$

n	c\ξ	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0
1	1	1.000	.963	.866	.733	.587	.446	.323	.222	.146	.092	.055
	2	1.000	.773	.536	.336	.192	.100	.047	.021	.008	.003	.001
	3	1.000	.620	.332	.154	.063	.022	.007	.002	.000	.000	.000
2	1	0.000	.639	.849	.916	.879	.773	.632	.485	.350	.240	.155
	2	0.000	.513	.525	.420	.287	.172	.093	.045	.020	.008	.003
	3	0.000	.411	.325	.193	.094	.038	.014	.004	.001	.000	.000
3	1	0.000	.424	.832	1.144	1.316	1.339	1.239	1.057	.841	.627	.440
	2	0.000	.340	.515	.524	.429	.299	.182	.098	.047	.020	.008
	3	0.000	.273	.318	.240	.140	.067	.027	.009	.003	.001	.000
4	1	0.000	.281	.815	1.429	1.969	2.319	2.427	2.307	2.018	1.639	1.243
	2	0.000	.226	.504	.655	.642	.517	.356	.213	.113	.054	.023
	3	0.000	.181	.312	.300	.210	.115	.052	.020	.006	.002	.000
5	1	0.000	.186	.798	1.785	2.947	4.016	4.756	5.033	4.842	4.285	3.517
	2	0.000	.150	.494	.818	.961	.896	.697	.466	.272	.140	.064
	3	0.000	.120	.306	.375	.314	.200	.102	.043	.015	.005	.001
6	1	0.000	.124	.782	2.229	4.410	6.957	9.320	10.980	11.621	11.208	9.946
	2	0.000	.099	.484	1.022	1.439	1.552	1.366	1.016	.652	.367	.182
	3	0.000	.080	.300	.468	.470	.346	.200	.094	.037	.012	.003
7	1	0.000	.082	.766	2.784	6.601	12.049	18.263	23.956	27.892	29.312	28.133
	2	0.000	.066	.474	1.276	2.154	2.689	2.677	2.217	1.566	.959	.515
	3	0.000	.053	.293	.585	.703	.600	.393	.205	.088	.031	.009
8	1	0.000	.054	.751	3.478	9.879	20.870	35.788	52.265	66.940	76.660	79.572
	2	0.000	.044	.465	1.594	3.223	4.657	5.247	4.837	3.758	2.508	1.457
	3	0.000	.035	.288	.731	1.052	1.039	.769	.448	.211	.082	.027
9	1	0.000	.036	.736	4.344	14.786	36.147	70.130	114.030	160.655	200.491	225.063
	2	0.000	.029	.455	1.991	4.824	8.066	10.282	10.554	9.018	6.559	4.122
	3	0.000	.023	.282	.913	1.574	1.800	1.507	.977	.506	.215	.076
10	1	0.000	.024	.721	5.425	22.130	62.609	137.426	248.784	385.573	524.353	636.573
	2	0.000	.019	.446	2.487	7.221	13.970	20.148	23.025	21.644	17.153	11.659
	3	0.000	.015	.276	1.140	2.356	3.117	2.954	2.131	1.215	.561	.214

Table 2c. Prolate radial spheroidal functions $X_k^{(+)}(n,n-2,c;\xi)$

n	k	c\ξ	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0
2	0	1	1.000	1.255	1.380	1.374	1.262	1.080	.868	.657	.470	.319	.206
		2	1.000	.980	.819	.599	.389	.227	.119	.057	.025	.010	.004
		3	1.000	.776	.496	.267	.123	.049	.017	.005	.001	.000	.000
2	1	1	1.000	.527	.155	-.100	-.244	-.300	-.293	-.251	-.196	-.142	-.096
		2	1.000	.166	-.237	-.343	-.296	-.202	-.118	-.060	-.027	-.011	-.004
		3	1.000	-.083	-.363	-.300	-.170	-.077	-.029	-.009	-.003	-.001	-.000
3	0	1	0.000	.838	1.290	1.622	1.774	1.749	1.584	1.332	1.047	.773	.539
		2	0.000	.640	.783	.726	.564	.379	.225	.119	.057	.024	.010
		3	0.000	.510	.479	.328	.181	.083	.032	.011	.003	.001	.000
3	1	1	0.000	.433	.359	.193	.023	-.107	-.182	-.207	-.195	-.163	-.124
		2	0.000	.261	.057	-.099	-.156	-.142	-.101	-.060	-.031	-.014	-.006
		3	0.000	.138	-.070	-.134	-.106	-.059	-.026	-.009	-.003	-.001	-.000
4	0	1	0.000	.528	1.238	1.974	2.579	2.936	3.003	2.807	2.425	1.951	1.478
		2	0.000	.421	.757	.892	.828	.644	.432	.255	.134	.063	.026
		3	0.000	.336	.465	.405	.267	.142	.063	.023	.007	.002	.000
4	1	1	0.000	.307	.426	.386	.247	.076	-.075	-.179	-.227	-.228	-.200
		2	0.000	.208	.154	.019	-.084	-.121	-.109	-.076	-.045	-.023	-.010
		3	0.000	.135	.027	-.065	-.083	-.059	-.031	-.013	-.004	-.001	-.000
5	0	1	0.000	.348	1.198	2.428	3.794	4.992	5.771	6.082	5.701	4.996	4.068
		2	0.000	.278	.735	1.103	1.225	1.181	.836	.549	.316	.161	.074
		3	0.000	.222	.453	.502	.396	.244	.121	.050	.018	.005	.001
5	1	1	0.000	.211	.455	.577	.538	.370	.142	-.077	-.238	-.323	-.338
		2	0.000	.150	.201	.115	-.011	-.099	-.124	-.106	-.072	-.041	-.020
		3	0.000	.104	.073	-.017	-.066	-.063	-.040	-.019	-.007	-.002	-.001
6	0	1	0.000	.230	1.164	3.003	5.614	8.541	11.164	12.921	13.496	12.883	11.342
		2	0.000	.184	.716	1.367	1.818	1.890	1.623	1.185	.751	.417	.206
		3	0.000	.147	.441	.624	.590	.419	.236	.109	.042	.014	.004
6	1	1	0.000	.143	.469	.795	.961	.897	.631	.256	-.116	-.400	-.557
		2	0.000	.104	.227	.214	.088	-.053	-.137	-.150	-.120	-.078	-.043
		3	0.000	.075	.100	.028	-.046	-.069	-.054	-.030	-.013	-.005	-.001

Table 2d. Prolate radial spheroidal functions $X_k^{(-)}(n,n-3,c;\xi)$

n	k	c\ξ	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0
3	0	1	1.000	1.810	2.530	3.022	3.218	3.124	2.808	2.337	1.827	1.345	.934
		2	1.000	1.346	1.484	1.221	.915	.603	.353	.186	.088	.038	.015
		3	1.000	1.030	.809	.515	.273	.122	.047	.015	.004	.001	.000
3	1	1	1.000	.751	.450	.161	-.070	-.223	-.297	-.307	-.274	-.222	-.165
		2	1.000	.369	-.074	-.286	-.318	-.255	-.168	-.096	-.048	-.021	-.009
		3	1.000	.074	-.305	-.327	-.218	-.111	-.046	-.016	-.005	-.001	-.000
4	0	1	0.000	1.080	2.127	3.158	3.968	4.411	4.439	4.103	3.515	2.810	2.106
		2	0.000	.838	1.253	1.365	1.214	.919	.606	.353	.183	.085	.036
		3	0.000	.657	.748	.600	.378	.195	.084	.031	.010	.003	.001
4	1	1	0.000	.549	.589	.461	.251	.034	-.142	-.251	-.293	-.283	-.241
		2	0.000	.356	.176	-.034	-.158	-.186	-.154	-.103	-.059	-.029	-.013
		3	0.000	.211	-.020	-.140	-.138	-.089	-.044	-.018	-.006	-.002	-.000
5	0	1	0.000	.686	1.953	3.658	5.453	6.978	7.916	8.124	7.640	6.643	5.377
		2	0.000	.540	1.173	1.615	1.711	1.494	1.111	.719	.410	.207	.094
		3	0.000	.427	.710	.721	.542	.323	.158	.064	.022	.007	.002
5	1	1	0.000	.379	.642	.720	.616	.385	.109	-.137	-.309	-.391	-.395
		2	0.000	.265	.268	.115	-.052	-.149	-.167	-.135	-.089	-.050	-.024
		3	0.000	.179	.080	-.052	-.115	-.089	-.053	-.025	-.009	-.003	-.001
6	0	1	0.000	.444	1.844	4.361	7.769	11.467	14.683	16.747	17.301	16.378	14.324
		2	0.000	.352	1.118	1.952	2.469	2.487	2.090	1.583	.941	.519	.254
		3	0.000	.279	.681	.878	.789	.543	.299	.136	.052	.017	.005
6	1	1	0.000	.258	.666	1.005	1.131	.996	.655	.219	-.192	-.492	-.648
		2	0.000	.186	.313	.252	.075	-.094	-.183	-.187	-.144	-.091	-.049
		3	0.000	.133	.130	.015	-.076	-.095	-.070	-.037	-.016	-.006	-.002
7	0	1	0.000	.290	1.763	5.290	11.257	19.185	27.747	35.190	39.954	41.185	38.932
		2	0.000	.230	1.076	2.383	3.602	4.193	3.980	3.184	2.192	1.316	.696
		3	0.000	.183	.658	1.077	1.157	.920	.573	.289	.121	.042	.013
7	1	1	0.000	.173	.677	1.343	1.898	2.102	1.854	1.227	.411	-.371	-.953
		2	0.000	.128	.339	.402	.259	.019	-.176	-.257	-.239	-.173	-.104
		3	0.000	.094	.159	.083	-.038	-.100	-.094	-.059	-.029	-.011	-.004

Table 2e. Prolate radial spheroidal functions $X_k^{(+)}(n, n-4, c; \xi)$

n	k	c\ξ	1.	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0
4	0	1	1.	2.837	5.093	7.322	9.051	9.965	9.968	9.173	7.833	6.246	4.672
		2	1.	2.013	2.693	2.813	2.447	1.829	1.196	.692	.358	.166	.069
		3	1.	1.477	1.468	1.116	.684	.347	.148	.054	.017	.005	.001
		4	1.	1.103	.826	.458	.198	.068	.019	.004	.001	.000	.000
		5	1.	.848	.477	.194	.059	.014	.003	.000	.000	.000	.000
4	1	1	1.	1.049	.905	.625	.289	-.022	-.257	-.391	-.434	-.407	-.340
		2	1.	.618	.170	-.164	-.317	-.322	-.248	-.160	-.189	-.043	-.019
		3	1.	.278	-.192	-.331	-.271	-.160	-.075	-.029	-.010	-.003	-.001
		4	1.	.019	-.334	-.290	-.153	-.059	-.018	-.004	-.001	-.000	-.000
		5	1.	-.165	-.353	-.202	-.073	-.019	-.004	-.001	-.000	-.000	-.000
4	2	1	1.	.288	-.138	-.303	-.279	-.153	-.005	.116	.186	.207	.192
		2	1.	-.141	-.339	-.129	.111	.229	.228	.169	.103	.053	.024
		3	1.	-.335	-.179	.154	.260	.201	.110	.047	.016	.005	.001
		4	1.	-.374	.135	.270	.212	.100	.034	.009	.002	.000	.000
		5	1.	-.325	.192	.263	.128	.039	.009	.001	.000	.000	.000
5	0	1	0.	1.517	3.745	6.612	9.583	12.037	13.488	13.721	12.821	11.095	8.946
		2	0.	1.152	2.143	2.769	2.835	2.423	1.779	1.139	.644	.324	.146
		3	0.	.885	1.245	1.179	.854	.497	.239	.096	.033	.010	.002
		4	0.	.686	.733	.510	.261	.104	.033	.008	.002	.000	.000
		5	0.	.536	.436	.223	.081	.022	.005	.001	.000	.000	.000
5	1	1	0.	.716	.976	.986	.783	.447	.081	-.231	-.436	-.525	-.518
		2	0.	.484	.369	.107	-.124	-.238	-.243	-.188	-.120	-.066	-.032
		3	0.	.308	.068	-.127	-.178	-.138	-.078	-.035	-.013	-.004	-.001
		4	0.	.178	-.066	-.146	-.107	[illegible]	-.018	-.005	-.001	-.000	-.000
		5	0.	.083	-.112	-.110	-.052	-.016	-.004	-.001	-.000	-.000	-.000
5	2	1	0.	.344	.177	-.017	-.139	-.165	-.119	-.039	.039	.095	.120
		2	0.	.137	-.080	-.121	-.043	.046	.091	.090	.066	.040	.020
		3	0.	.014	-.106	-.022	.064	.081	.057	.029	.012	.004	.001
		4	0.	-.050	-.061	.047	.073	.046	.019	.006	.001	.000	.000
		5	0.	-.076	-.009	.067	.050	.019	.005	.001	.000	.000	.000
6	0	1	0.	.922	3.241	7.151	12.269	17.692	22.302	25.155	25.775	24.246	21.102
		2	0.	.716	1.910	3.097	3.761	3.696	3.054	2.170	1.347	.737	.359
		3	0.	.559	1.136	1.354	1.165	.781	.423	.189	.071	.023	.006
		4	0.	.439	.680	.597	.364	.166	.059	.017	.004	.001	.000
		5	0.	.346	.410	.265	.115	.036	.008	.001	.000	.000	.000
6	1	1	0.	.482	1.001	1.366	1.442	1.208	.746	.197	-.303	-.650	-.820
		2	0.	.343	.452	.310	.055	-.160	-.257	-.249	-.185	-.115	-.061
		3	0.	.238	.169	-.012	-.127	-.138	-.095	-.050	-.021	-.007	-.002
		4	0.	.159	.032	-.081	-.092	-.055	-.023	-.007	-.002	-.000	-.000
		5	0.	.101	-.027	-.073	-.047	-.018	-.005	-.001	-.000	-.000	-.000
6	2	1	0.	.266	.293	.171	.007	-.115	-.159	-.129	-.057	.023	.085
		2	0.	.147	.034	-.069	-.074	-.017	.040	.065	.060	.043	.025
		3	0.	.071	-.040	-.046	.009	.043	.042	.026	.012	.004	.001
		4	0.	.024	-.044	-.002	.033	.031	.016	.006	.001	.000	.000
		5	0.	-.003	-.026	.020	.027	.014	.004	.001	.000	.000	.000
7	0	1	0.	.583	2.958	8.216	16.758	27.819	39.526	49.499	55.676	56.981	53.562
		2	0.	.457	1.770	3.619	5.234	5.926	5.521	4.359	2.970	1.770	.931
		3	0.	.360	1.065	1.505	1.646	1.271	.777	.387	.160	.055	.016
		4	0.	.285	.644	.715	.521	.274	.110	.035	.009	.002	.000
		5	0.	.225	.391	.320	.166	.060	.016	.003	.000	.000	.000
7	1	1	0.	.323	1.009	1.809	2.409	2.557	2.173	1.368	.380	-.538	-1.199
		2	0.	.236	.494	.517	.293	-.020	-.252	-.336	-.300	-.212	-.125
		3	0.	.170	.222	.087	-.074	-.143	-.125	-.076	-.036	-.014	-.004
		4	0.	.120	.083	-.032	-.082	-.064	-.032	-.011	-.003	-.001	-.000
		5	0.	.083	.017	-.049	-.046	-.022	-.007	-.001	-.000	-.000	-.000
7	2	1	0.	.189	.350	.351	.210	.016	-.140	-.205	-.175	-.085	.021
		2	0.	.118	.098	-.009	-.073	-.056	-.000	.046	.061	.053	.035
		3	0.	.069	.004	-.042	-.018	.021	.035	.027	.015	.006	.002
		4	0.	.037	-.021	-.017	.014	.023	.015	.006	.002	.000	.000
		5	0.	.017	-.020	.002	.017	.012	.004	.001	.000	.000	.000

Table 2f. Prolate radial spheroidal functions $X_k^{(-)}(n,n-5,c;\xi)$

n	k	c\ξ	1.	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0
5	0	1	1.	4.641	10.752	18.568	26.609	33.200	37.039	37.563	35.020	30.254	24.361
		2	1.	3.234	5.560	6.987	7.053	5.978	4.362	2.783	1.570	.789	.355
		3	1.	2.286	2.919	2.568	1.897	1.092	.521	.209	.071	.021	.005
		4	1.	1.651	1.567	1.043	.522	.204	.064	.016	.003	.001	.000
		5	1.	1.21	.864	.419	.148	.039	.008	.001	.000	.000	.000
5	1	1	1.	1.540	1.815	1.720	1.305	.703	.076	-.441	-.772	-.907	-.883
		2	1.	.955	.571	.088	-.274	-.429	-.411	-.307	-.192	-.104	-.049
		3	1.	.535	-.004	-.306	-.342	-.243	-.131	-.057	-.021	-.006	-.002
		4	1.	.220	-.260	-.328	-.210	-.094	-.032	-.008	-.002	-.000	-.000
		5	1.	-.017	-.344	-.250	-.106	-.031	-.007	-.001	-.000	-.000	-.000
5	2	1	1.	.548	.128	-.163	-.288	-.267	-.156	-.017	.103	.177	.204
		2	1.	.050	-.313	-.242	-.014	.164	.226	.199	.138	.079	.040
		3	1.	-.240	-.271	.049	.232	.226	.143	.068	.026	.008	.002
		4	1.	-.353	-.073	.232	.236	.129	.049	.014	.003	.001	.000
		5	1.	-.360	.112	.271	.159	.055	.013	.002	.000	.000	.000
6	0	1	0.	2.220	6.924	14.586	24.420	34.694	43.303	48.503	49.444	46.331	40.200
		2	0.	1.655	3.674	5.964	7.050	6.813	5.566	3.925	2.422	1.320	.641
		3	0.	1.245	2.195	2.472	2.063	1.357	.726	.322	.120	.038	.010
		4	0.	.948	1.260	1.039	.613	.274	.096	.027	.006	.001	.000
		5	0.	.728	.732	.443	.185	.056	.013	.002	.000	.000	.000
6	1	1	0.	.972	1.687	2.127	2.143	1.728	1.014	.206	-.504	-.990	-1.214
		2	0.	.667	.708	.419	.021	-.280	-.400	-.370	-.269	-.164	-.086
		3	0.	.441	.224	-.073	-.226	-.220	-.144	-.073	-.030	-.010	-.003
		4	0.	.277	-.002	-.165	-.156	-.087	-.035	-.011	-.003	-.000	-.000
		5	0.	.154	-.095	-.140	-.080	-.029	-.007	-.001	-.000	-.000	-.000
6	2	1	0.	.465	.380	.162	-.055	-.189	-.216	-.155	-.051	.052	.126
		2	0.	.226	-.016	-.141	-.105	-.000	.082	.110	.095	.065	.037
		3	0.	.077	-.112	-.066	.042	.089	.076	.044	.020	.007	.002
		4	0.	-.018	-.089	.024	.079	.061	.029	.010	.002	.001	.000
		5	0.	-.064	-.036	.064	.061	.028	.008	.002	.000	.000	.000
7	0	1	0.	1.281	5.609	14.574	28.985	47.171	66.140	82.054	91.655	93.309	87.350
		2	0.	.981	3.249	6.233	8.708	9.651	8.865	6.928	4.686	2.777	1.454
		3	0.	.757	1.899	2.673	2.643	1.995	1.201	.591	.242	.084	.024
		4	0.	.587	1.118	1.157	.810	.417	.164	.051	.013	.003	.000
		5	0.	.458	.664	.505	.250	.088	.023	.004	.001	.000	.000
7	1	1	0.	.632	1.629	2.582	3.399	3.485	2.872	1.733	.390	-.824	-1.678
		2	0.	.452	.767	.717	.356	-.081	-.383	-.475	-.412	-.286	-.167
		3	0.	.318	.323	.088	-.137	-.217	-.179	-.105	-.049	-.018	-.006
		4	0.	.210	.102	-.075	-.132	-.095	-.045	-.016	-.004	-.001	-.000
		5	0.	.145	-.000	-.090	-.073	-.032	-.010	-.002	-.000	-.000	-.000
7	2	1	0.	.333	.484	.416	.206	-.033	-.203	-.255	-.200	-.082	.046
		2	0.	.207	.110	-.047	-.110	-.067	.015	.073	.088	.072	.047
		3	0.	.108	-.023	-.068	-.014	.042	.056	.041	.021	.009	.003
		4	0.	.048	-.049	-.019	.032	.040	.024	.010	.003	.001	.000
		5	0.	.011	-.037	.014	.033	.020	.007	.002	.000	.000	.000
8	0	1	0.	.736	4.918	16.120	37.750	70.598	111.437	153.364	187.928	208.040	210.263
		2	0.	.610	2.904	6.394	11.600	14.786	15.299	13.268	9.848	6.347	3.589
		3	0.	.475	1.724	3.055	3.590	3.120	2.116	1.157	.520	.195	.062
		4	0.	.373	1.030	1.343	1.119	.663	.295	.102	.028	.006	.001
		5	0.	.297	.618	.593	.351	.142	.041	.009	.001	.000	.000
8	1	1	0.	.417	1.586	3.383	5.286	6.584	6.710	5.505	3.277	.640	-1.753
		2	0.	.304	.795	1.043	.828	.282	-.275	-.601	-.651	-.522	-.341
		3	0.	.221	.375	.241	-.030	-.209	-.230	-.162	-.085	-.035	-.012
		4	0.	.153	.157	-.002	-.111	-.110	-.063	-.025	-.008	-.002	-.000
		5	0.	.112	.050	-.054	-.070	-.039	-.014	-.003	-.001	-.000	-.000
8	2	1	0.	.235	.539	.583	.584	.296	-.044	-.296	-.383	-.307	-.131
		2	0.	.152	.180	.051	-.080	-.108	-.045	.037	.085	.090	.068
		3	0.	.094	.033	-.049	-.041	.012	.044	.043	.027	.012	.005
		4	0.	.054	-.015	-.030	.008	.029	.023	.011	.004	.001	.000
		5	0.	.023	-.023	-.005	.019	.017	.007	.002	.000	.000	.000

Table 3a. Oblate angular spheroidal functions $\tilde{Y}_0(n,n,p;\bar{\eta})$

n	p \ $\bar{\eta}$	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
0	1	.6065	.6096	.6188	.6344	.6570	.6873	.7261	.7749	.8353	.9094	1.0000
	2	.3679	.3716	.3829	.4025	.4317	.4724	.5273	.6005	.6977	.8270	1.0000
	3	.2231	.2265	.2369	.2554	.2837	.3247	.3829	.4653	.5827	.7520	1.0000
1	1	.6065	.6065	.6063	.6052	.6022	.5952	.5809	.5534	.5012	.3964	0.0000
	2	.3679	.3697	.3752	.3840	.3957	.4091	.4218	.4288	.4186	.3605	0.0000
	3	.2231	.2254	.2321	.2436	.2600	.2812	.3063	.3323	.3496	.3278	0.0000
2	1	.6065	.6035	.5940	.5773	.5519	.5155	.4647	.3952	.3007	.1728	0.0000
	2	.3679	.3679	.3676	.3663	.3626	.3543	.3375	.3063	.2512	.1571	0.0000
	3	.2231	.2242	.2275	.2324	.2383	.2435	.2451	.2373	.2098	.1429	0.0000
3	1	.6065	.6005	.5820	.5508	.5058	.4464	.3718	.2822	.1804	.0753	0.0000
	2	.3679	.3660	.3602	.3494	.3324	.3068	.2700	.2187	.1507	.0685	0.0000
	3	.2231	.2231	.2229	.2217	.2184	.2109	.1960	.1695	.1259	.0623	0.0000
4	1	.6065	.5974	.5703	.5254	.4636	.3866	.2974	.2016	.1083	.0328	0.0000
	2	.3679	.3642	.3529	.3333	.3046	.2657	.2160	.1562	.0904	.0299	0.0000
	3	.2231	.2220	.2184	.2115	.2001	.1826	.1568	.1210	.0755	.0271	0.0000
5	1	.6065	.5944	.5587	.5012	.4243	.3348	.2379	.1439	.0650	.0143	0.0000
	2	.3679	.3624	.3457	.3180	.2792	.2301	.1728	.1115	.0543	.0130	0.0000
	3	.2231	.2209	.2139	.2017	.1834	.1582	.1255	.0864	.0453	.0118	0.0000
6	1	.6065	.5915	.5475	.4781	.3894	.2900	.1904	.1028	.0390	.0062	0.0000
	2	.3679	.3605	.3388	.3033	.2559	.1993	.1382	.0797	.0326	.0057	0.0000
	3	.2231	.2198	.2096	.1924	.1681	.1370	.1004	.0617	.0272	.0052	0.0000
7	1	.6065	.5885	.5364	.4561	.3569	.2511	.1523	.0734	.0234	.0027	0.0000
	2	.3679	.3587	.3319	.2894	.2345	.1726	.1106	.0569	.0195	.0025	0.0000
	3	.2231	.2187	.2054	.1836	.1541	.1186	.0803	.0441	.0163	.0022	0.0000
8	1	.6065	.5856	.5256	.4351	.3271	.2175	.1218	.0524	.0140	.0012	0.0000
	2	.3679	.3569	.3252	.2760	.2149	.1495	.0885	.0406	.0117	.0011	0.0000
	3	.2231	.2176	.2012	.1751	.1412	.1027	.0642	.0315	.0098	.0010	0.0000
9	1	.6065	.5826	.5149	.4150	.2998	.1883	.0975	.0374	.0084	.0005	0.0000
	2	.3679	.3551	.3186	.2633	.1970	.1294	.0708	.0290	.0070	.0005	0.0000
	3	.2231	.2165	.1972	.1671	.1294	.0890	.0514	.0225	.0059	.0004	0.0000

Table 3b. Oblate angular spheroidal functions $\tilde{Y}_1(n,n-1,p;\bar{\eta})$

n	p \ $\bar{\eta}$	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
1	1	0.0000	.0610	.1238	.1903	.2628	.3436	.4357	.5424	.6682	.8184	1.0000
	2	0.0000	.0372	.0766	.1208	.1727	.2362	.3164	.4203	.5581	.7443	1.0000
	3	0.0000	.0227	.0474	.0766	.1135	.1623	.2297	.3257	.4662	.6768	1.0000
2	1	0.0000	.0607	.1213	.1816	.2409	.2976	.3486	.3874	.4009	.3567	0.0000
	2	0.0000	.0370	.0750	.1152	.1583	.2045	.2531	.3002	.3349	.3244	0.0000
	3	0.0000	.0225	.0464	.0731	.1040	.1406	.1838	.2326	.2797	.2950	0.0000
3	1	0.0000	.0603	.1188	.1732	.2208	.2577	.2788	.2766	.2406	.1555	0.0000
	2	0.0000	.0368	.0735	.1099	.1451	.1771	.2025	.2144	.2009	.1414	0.0000
	3	0.0000	.0224	.0455	.0697	.0953	.1217	.1470	.1661	.1678	.1286	0.0000
4	1	0.0000	.0600	.1164	.1652	.2023	.2232	.2231	.1976	.1443	.0678	0.0000
	2	0.0000	.0366	.0720	.1048	.1329	.1534	.1620	.1531	.1206	.0616	0.0000
	3	0.0000	.0223	.0446	.0665	.0874	.1054	.1176	.1186	.1007	.0561	0.0000
5	1	0.0000	.0597	.1141	.1576	.1854	.1933	.1785	.1411	.0866	.0295	0.0000
	2	0.0000	.0364	.0706	.1000	.1218	.1329	.1296	.1093	.0723	.0269	0.0000
	3	0.0000	.0222	.0437	.0634	.0801	.0913	.0941	.0847	.0604	.0244	0.0000
6	1	0.0000	.0594	.1117	.1504	.1700	.1674	.1428	.1008	.0520	.0129	0.0000
	2	0.0000	.0362	.0691	.0954	.1117	.1151	.1037	.0781	.0434	.0117	0.0000
	3	0.0000	.0221	.0428	.0605	.0734	.0791	.0753	.0605	.0363	.0107	0.0000
7	1	0.0000	.0591	.1095	.1434	.1558	.1450	.1142	.0720	.0312	.0056	0.0000
	2	0.0000	.0361	.0678	.0910	.1024	.0996	.0829	.0558	.0260	.0051	0.0000
	3	0.0000	.0220	.0419	.0577	.0672	.0685	.0602	.0432	.0218	.0046	0.0000
8	1	0.0000	.0589	.1073	.1368	.1428	.1256	.0914	.0514	.0187	.0024	0.0000
	2	0.0000	.0359	.0664	.0868	.0938	.0863	.0663	.0398	.0156	.0022	0.0000
	3	0.0000	.0219	.0411	.0551	.0616	.0593	.0482	.0309	.0131	.0020	0.0000
9	1	0.0000	.0586	.1051	.1305	.1308	.1087	.0731	.0367	.0112	.0011	0.0000
	2	0.0000	.0357	.0650	.0828	.0860	.0747	.0531	.0284	.0094	.0010	0.0000
	3	0.0000	.0218	.0402	.0525	.0565	.0514	.0385	.0220	.0078	.0009	0.0000
10	1	0.0000	.0583	.1030	.1245	.1199	.0942	.0585	.0262	.0067	.0005	0.0000
	2	0.0000	.0355	.0637	.0790	.0788	.0647	.0425	.0203	.0056	.0004	0.0000
	3	0.0000	.0216	.0394	.0501	.0518	.0445	.0308	.0157	.0047	.0004	0.0000

Table 3c. Oblate angular spheroidal functions $\tilde{Y}_t(n,n-2,p;\bar{\eta})$

n	t	p\ $\bar{\eta}$	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
2	0	1	.3033	.3078	.3218	.3458	.3811	.4296	.4938	.5773	.6849	.8230	1.0000
		2	.1033	.1070	.1185	.1391	.1709	.2176	.2846	.3802	.5170	.7140	1.0000
		3	.0415	.0440	.0518	.0662	.0897	.1265	.1835	.2722	.4120	.6357	1.0000
2	2	1	-.6065	-.5974	-.5693	-.5202	-.4468	-.3436	-.2033	-.1155	.2339	.5638	1.0000
		2	-.6551	-.6514	-.6393	-.6161	-.5767	-.5128	-.4111	-.2511	-.0008	.3900	1.0000
		3	-.5994	-.6001	-.6015	-.6013	-.5946	-.5729	-.5204	-.4095	-.1906	.2253	1.0000
3	0	1	.3884	.3906	.3970	.4072	.4203	.4347	.4472	.4519	.4363	.3693	0.0000
		2	.1436	.1466	.1556	.1710	.1931	.2220	.2573	.2955	.3267	.3187	0.0000
		3	.0558	.0580	.0650	.0773	.0962	.1230	.1593	.2052	.2552	.2811	0.0000
3	2	1	-.2368	-.2283	-.2030	-.1605	-.1011	-.0255	.0640	.1610	.2503	.2917	0.0000
		2	-.2356	-.2307	-.2156	-.1892	-.1495	-.0942	-.0210	.0701	.1714	.2481	0.0000
		3	-.2231	-.2209	-.2136	-.1998	-.1768	-.1406	-.0858	-.0066	.0979	.2032	0.0000
4	0	1	.4420	.4414	.4393	.4348	.4261	.4106	.3840	.3405	.2713	.1639	0.0000
		2	.1839	.1858	.1911	.1996	.2103	.2214	.2295	.2282	.2060	.1422	0.0000
		3	.0744	.0762	.0819	.0914	.1048	.1217	.1405	.1566	.1594	.1248	0.0000
4	2	1	-.1387	-.1306	-.1067	-.0682	-.0177	.0404	.0993	.1476	.1677	.1324	0.0000
		2	-.1226	-.1177	-.1029	-.0781	-.0435	0.0000	.0495	.0980	.1306	.1173	0.0000
		3	-.1116	-.1088	-.1001	-.0848	-.0620	-.0304	.0098	.0558	.0965	.1022	0.0000
5	0	1	.4757	.4723	.4615	.4427	.4142	.3742	.3205	.2512	.1664	.0722	0.0000
		2	.2162	.2166	.2176	.2183	.2173	.2119	.1987	.1727	.1283	.0631	0.0000
		3	.0941	.0953	.0991	.1050	.1123	.1194	.1235	.1195	.0997	.0554	0.0000
5	2	1	-.0967	-.0887	-.0658	-.0303	.0132	.0582	.0959	.1154	.1051	.0587	0.0000
		2	-.0782	-.0734	-.0591	-.0362	-.0062	.0278	.0604	.0834	.0849	.0527	0.0000
		3	-.0662	-.0633	-.0545	-.0399	-.0195	.0058	.0334	.0574	.0671	.0469	0.0000
6	0	1	.4984	.4920	.4727	.4401	.3942	.3349	.2635	.1832	.1013	.0317	0.0000
		2	.2403	.2391	.2354	.2281	.2159	.1966	.1680	.1286	.0791	.0279	0.0000
		3	.1116	.1121	.1135	.1153	.1161	.1141	.1066	.0902	.0619	.0246	0.0000
6	2	1	-.0738	-.0660	-.0438	-.0109	.0268	.0614	.0839	.0863	.0645	.0258	0.0000
		2	-.0563	-.0516	-.0378	-.0164	.0096	.0359	.0566	.0643	.0529	.0233	0.0000
		3	-.0446	-.0417	-.0332	-.0195	-.0016	.0183	.0364	.0470	.0429	.0210	0.0000

Table 3d. Oblate angular spheroidal functions $\tilde{Y}_t(n,n-3,p;\bar{\eta})$

n	t	p\ $\bar{\eta}$	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
3	1	1	0.0000	.0420	.0865	.1360	.1935	.2628	.3482	.4556	.5927	.7696	1.0000
		2	0.0000	.0188	.0398	.0658	.1002	.1476	.2151	.3132	.4577	.6736	1.0000
		3	0.0000	.0089	.0195	.0338	.0549	.0876	.1395	.2237	.3632	.5979	1.0000
3	3	1	0.0000	-.1313	-.2548	-.3615	-.4406	-.4775	-.4527	-.3390	-.0982	.3230	1.0000
		2	0.0000	-.1100	-.2175	-.3188	-.4075	-.4724	-.4935	-.4372	-.2456	.1786	1.0000
		3	0.0000	-.0869	-.1749	-.2640	-.3522	-.4325	-.4887	-.4859	-.3538	.0485	1.0000
4	1	1	0.0000	.0456	.0922	.1403	.1903	.2418	.2928	.3380	.3648	.3398	0.0000
		2	0.0000	.0212	.0440	.0700	.1009	.1384	.1832	.2342	.2829	.2978	0.0000
		3	0.0000	.0101	.0216	.0360	.0553	.0819	.1183	.1665	.2236	.2638	0.0000
4	3	1	0.0000	-.0594	-.1116	-.1489	-.1638	-.1488	-.0976	-.0077	.1123	.2212	0.0000
		2	0.0000	-.0479	-.0920	-.1279	-.1500	-.1512	-.1225	-.0548	.0553	.1815	0.0000
		3	0.0000	-.0375	-.0736	-.1060	-.1312	-.1434	-.1330	-.0869	.0085	.1441	0.0000
5	1	1	0.0000	.0481	.0955	.1409	.1828	.2182	.2423	.2478	.2228	.1495	0.0000
		2	0.0000	.0233	.0473	.0728	.0998	.1278	.1544	.1738	.1741	.1314	0.0000
		3	0.0000	.0113	.0237	.0380	.0553	.0761	.1000	.1238	.1376	.1164	0.0000
5	3	1	0.0000	-.0370	-.0669	-.0835	-.0813	-.0571	-.0118	.0469	.0995	.1074	0.0000
		2	0.0000	-.0286	-.0532	-.0696	-.0737	-.0614	-.0302	.0181	.0711	.0932	0.0000
		3	0.0000	-.0220	-.0419	-.0572	-.0648	-.0609	-.0412	-.0033	.0470	.0797	0.0000
6	1	1	0.0000	.0498	.0972	.1394	.1731	.1944	.1985	.1802	.1354	.0656	0.0000
		2	0.0000	.0249	.0498	.0741	.0970	.1164	.1286	.1280	.1066	.0579	0.0000
		3	0.0000	.0124	.0254	.0395	.0546	.0701	.0840	.0916	.0845	.0513	0.0000
6	3	1	0.0000	-.0263	-.0460	-.0532	-.0446	-.0200	.0156	.0512	.0688	.0491	0.0000
		2	0.0000	-.0197	-.0354	-.0433	-.0405	-.0253	.0010	.0318	.0532	.0435	0.0000
		3	0.0000	-.0148	-.0272	-.0351	-.0358	-.0273	-.0087	.0171	.0399	.0382	0.0000
7	1	1	0.0000	.0510	.0979	.1364	.1624	.1719	.1616	.1304	.0820	.0287	0.0000
		2	0.0000	.0262	.0515	.0743	.0930	.1047	.1062	.0936	.0650	.0254	0.0000
		3	0.0000	.0134	.0269	.0404	.0532	.0639	.0700	.0674	.0517	.0226	0.0000
7	3	1	0.0000	-.0202	-.0340	-.0363	-.0252	-.0027	.0240	.0438	.0444	.0220	0.0000
		2	0.0000	-.0147	-.0255	-.0290	-.0233	-.0084	.0120	.0303	.0354	.0196	0.0000
		3	0.0000	-.0108	-.0192	-.0232	-.0208	-.0114	.0038	.0199	.0278	.0175	0.0000

Table 3e. Oblate angular spheroidal functions $\tilde{Y}_t^{(+)}(n,n-4,p;\tilde{\eta})$

n	t	p\η̃	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
4	4	1	.4064	.3766	.2894	.1524	-.0206	-.2059	-.3660	-.4421	-.3438	.0671	1.0000
		2	.4515	.4234	.3593	.2455	.0912	-.0927	-.2816	-.4238	-.4170	-.0651	1.0000
		3	.5104	.4935	.4416	.3520	.2211	.0485	-.1561	-.3555	-.4477	-.1851	1.0000
		4	.5610	.5521	.5155	.4519	.3505	.2012	-.0018	-.2419	-.4318	-.2867	1.0000
		5	.5737	.5684	.5507	.5142	.4475	.3337	.1532	-.1018	-.3732	-.3628	1.0000
4	2	1	-.6424	-.6363	-.6192	-.5867	-.5342	-.4541	-.3346	-.1590	.0967	.4668	1.0000
		2	-.5361	-.5389	-.5464	-.5561	-.5624	-.5555	-.5177	-.4186	-.2050	.2148	1.0000
		3	-.3276	-.3343	-.3541	-.3864	-.4288	-.4749	-.5097	-.4997	-.3730	.0219	1.0000
		4	-.1766	-.1835	-.2046	-.2410	-.2936	-.3616	-.4368	-.4919	-.4506	-.1162	1.0000
		5	-.0934	-.0990	-.1167	-.1480	-.1981	-.2683	-.3587	-.4522	-.4791	-.2159	1.0000
4	0	1	.1603	.1647	.1783	.2022	.2383	.2895	.3502	.4563	.5864	.7621	1.0000
		2	.0386	.0411	.0493	.0644	.0892	.1279	.1877	.2800	.4232	.6470	1.0000
		3	.0125	.0139	.0183	.0270	.0424	.0687	.1138	.1916	.3273	.5677	1.0000
		4	.0047	.0054	.0079	.0129	.0224	.0401	.0734	.1368	.2600	.5044	1.0000
		5	.0019	.0023	.0037	.0066	.0125	.0244	.0488	.0999	.2095	.4512	1.0000
5	4	1	.1196	.1061	.0677	.0111	-.0521	-.1054	-.1279	-.0972	.0023	.1489	0.0000
		2	.1173	.1072	.0776	.0318	-.0238	-.0784	-.1150	-.1093	-.0343	.1124	0.0000
		3	.1183	.1108	.0885	.0523	.0047	-.0482	-.0941	-.1101	-.0614	.0781	0.0000
		4	.1217	.1154	.1002	.0725	.0333	-.0156	-.0667	-.1008	-.0793	.0464	0.0000
		5	.1243	.1209	.1099	.0901	.0596	.0171	-.0349	-.0825	-.0878	.0178	0.0000
5	2	1	-.2381	-.2314	-.2112	-.1767	-.1267	-.0601	.0228	.1186	.2151	.2731	0.0000
		2	-.2228	-.2257	-.2139	-.2006	-.1778	-.1410	-.0844	-.0025	.1045	.2090	0.0000
		3	-.1641	-.1649	-.1669	-.1687	-.1673	-.1577	-.1316	-.0767	.0197	.1499	0.0000
		4	-.0999	-.1013	-.1078	-.1169	-.1275	-.1358	-.1341	-.1078	-.0340	.1020	0.0000
		5	-.0550	-.0571	-.0635	-.0741	-.0887	-.1053	-.1183	-.1140	-.0646	.0649	0.0000
5	0	1	.2448	.2479	.2571	.2723	.2932	.3189	.3472	.3726	.3832	.3460	0.0000
		2	.0595	.0621	.0697	.0834	.1040	.1331	.1717	.2192	.2686	.2894	0.0000
		3	.0179	.0193	.0236	.0323	.0461	.0676	.0997	.1455	.2039	.2517	0.0000
		4	.0064	.0071	.0097	.0146	.0234	.0382	.0628	.1023	.1604	.2227	0.0000
		5	.0025	.0029	.0043	.0072	.0127	.0228	.0413	.0740	.1285	.1986	0.0000
6	4	1	.0552	.0467	.0233	-.0086	-.0396	-.0575	-.0511	-.0144	.0435	.0820	0.0000
		2	.0498	.0436	.0261	.0007	-.0264	-.0467	-.0498	-.0261	.0238	.0690	0.0000
		3	.0461	.0416	.0285	.0087	-.0146	-.0355	-.0452	-.0329	.0079	.0568	0.0000
		4	.0437	.0405	.0309	.0157	-.0038	-.0240	-.0381	-.0354	-.0043	.0454	0.0000
		5	.0423	.0401	.0333	.0218	.0060	-.0126	-.0293	-.0344	-.0134	.0349	0.0000
6	2	1	-.1327	-.1259	-.1059	-.0731	-.0290	.0236	.0794	.1285	.1540	.1271	0.0000
		2	-.1163	-.1132	-.1034	-.0864	-.0610	-.0264	.0170	.0650	.1052	.1066	0.0000
		3	-.0956	-.0947	-.0915	-.0851	-.0736	-.0544	-.0248	.0163	.0627	.0863	0.0000
		4	-.0667	-.0670	-.0677	-.0680	-.0661	-.0593	-.0435	-.0137	.0304	.0680	0.0000
		5	-.0405	-.0413	-.0437	-.0470	-.0504	-.0516	-.0465	-.0285	.0086	.0528	0.0000
6	0	1	.3176	.3195	.3211	.3244	.3269	.3258	.3170	.2936	.2452	.1556	0.0000
		2	.0895	.0916	.0979	.1085	.1231	.1409	.1596	.1739	.1720	.1301	0.0000
		3	.0263	.0277	.0321	.0398	.0516	.0680	.0889	.1119	.1279	.1120	0.0000
		4	.0089	.0097	.0122	.0170	.0249	.0369	.0544	.0770	.0994	.0985	0.0000
		5	.0034	.0033	.0052	.0081	.0131	.0215	.0351	.0551	.0790	.0876	0.0000
7	4	1	.0313	.0253	.0090	-.0116	-.0283	-.0326	-.0191	.0097	.0386	.0394	0.0000
		2	.0266	.0222	.0103	-.0057	-.0205	-.0276	-.0210	.0004	.0274	.0343	0.0000
		3	.0231	.0200	.0113	-.0011	-.0139	-.0223	-.0209	-.0060	.0182	.0295	0.0000
		4	.0205	.0183	.0120	.0024	-.0084	-.0172	-.0193	-.0099	.0107	.0251	0.0000
		5	.0187	.0171	.0126	.0053	-.0036	-.0122	-.0167	-.0119	.0048	.0210	0.0000
7	2	1	-.0904	-.0836	-.0638	-.0329	.0060	.0474	.0837	.1048	.0987	.0569	0.0000
		2	-.0714	-.0679	-.0575	-.0402	-.0166	.0119	.0419	.0664	.0738	.0493	0.0000
		3	-.0587	-.0571	-.0522	-.0434	-.0300	-.0113	.0119	.0363	.0522	.0419	0.0000
		4	-.0450	-.0445	-.0433	-.0396	-.0335	-.0230	-.0069	.0142	.0341	.0349	0.0000
		5	-.0304	-.0306	-.0308	-.0308	-.0293	-.0250	-.0156	.0004	.0204	.0287	0.0000
7	0	1	.3700	.3684	.3633	.3536	.3376	.3127	.2758	.2234	.1535	.0693	0.0000
		2	.1229	.1243	.1281	.1338	.1404	.1458	.1465	.1370	.1099	.0584	0.0000
		3	.0384	.0397	.0435	.0500	.0583	.0698	.0805	.0870	.0809	.0500	0.0000
		4	.0126	.0134	.0159	.0203	.0271	.0364	.0477	.0586	.0619	.0437	0.0000
		5	.0046	.0053	.0065	.0092	.0137	.0206	.0301	.0412	.0488	.0387	0.0000

Table 3f. Oblate angular spheroidal functions $\breve{Y}_t^{(-)}(n,n-5,p;\bar{\eta})$

n	t	p\η̄	0.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
5	5	1	0.0000	[illegible]	.3023	.3679	.3279	.1854	-.0453	-.2980	-.4271	-.1566	1.0000
		2	0.0000	.1507	.2928	.3726	.3732	.2739	.0700	-.2026	-.4174	-.2546	1.0000
		3	0.0000	.1456	.2760	.3687	.4012	.3467	.1821	-.0891	-.3737	-.3321	1.0000
		4	0.0000	.1326	.2515	.3505	.4082	.3963	.2790	.0298	-.3028	-.3871	1.0000
		5	0.0000	.1122	.2209	.3195	.3943	.4192	.3520	.1415	-.2138	-.4193	1.0000
5	3	1	0.0000	-.1214	-.2378	-.3429	-.4278	-.4789	-.4758	-.3873	-.1656	.2608	1.0000
		2	0.0000	-.0863	-.1750	-.2646	-.3533	-.4332	-.4867	-.4773	-.3344	.0753	1.0000
		3	0.0000	-.0552	-.1165	-.1846	-.2628	-.3499	-.4354	-.4880	-.4284	-.0715	1.0000
		4	0.0000	-.0345	-.0736	-.1222	-.1854	-.2668	-.3644	-.4572	-.4701	-.1835	1.0000
		5	0.0000	-.0226	-.0454	-.0791	-.1276	-.1980	-.2949	-.4094	-.4793	-.2681	1.0000
5	1	1	0.0000	.0295	.0616	.0931	.1454	.2049	.2835	.3889	.5322	.7286	1.0000
		2	0.0000	.0112	.0222	.0385	.0623	.0985	.1549	.2444	.3877	.6200	1.0000
		3	0.0000	.0043	.0094	.0169	.0300	.0526	.0927	.1648	.2966	.5407	1.0000
		4	0.0000	.0017	.0043	.0081	.0155	.0300	.0585	.1157	.2329	.4777	1.0000
		5	0.0000	[illegible]	.0019	.0041	.0085	.0178	.0381	.0832	.1858	.4253	1.0000
6	5	1	0.0000	.0517	.0863	.0924	.0624	.0025	-.0664	-.1057	-.0652	.0815	0.0000
		2	0.0000	.0453	.0797	.0913	.0735	.0260	-.0397	-.0929	-.0805	.0508	0.0000
		3	0.0000	.0412	.0724	.0883	.0809	.0459	-.0131	-.0746	-.0875	.0234	0.0000
		4	0.0000	.0343	.0647	.0834	.0844	.0613	.0116	-.0528	-.0872	-.0001	0.0000
		5	0.0000	.0293	.0566	.0764	.0838	.0715	.0327	-.0298	-.0809	-.0196	0.0000
6	3	1	0.0000	-.0550	-.1042	-.1414	-.1596	-.1513	-.1087	-.0267	.0908	.2070	0.0000
		2	0.0000	-.0393	-.0777	-.1113	-.1364	-.1465	-.1318	-.0795	.0214	.1558	0.0000
		3	0.0000	-.0263	-.0539	-.0811	-.1068	-.1265	-.1315	-.1060	-.0280	.1110	0.0000
		4	0.0000	-.0171	-.0353	-.0557	-.0783	-.1012	-.1179	-.1135	-.0596	.0738	0.0000
		5	0.0000	-.0113	-.0223	-.0369	-.0553	-.0774	-.0996	-.1098	-.0779	.0436	0.0000
6	1	1	0.0000	.0344	.0703	.1086	.1511	.1976	.2474	.2966	.3335	.3245	0.0000
		2	0.0000	.0125	.0265	.0438	.0664	.0965	.1365	.1872	.2433	.2761	0.0000
		3	0.0000	.0043	.0108	.0191	.0316	.0510	.0808	.1250	.1848	.2399	0.0000
		4	0.0000	.0020	.0047	.0090	.0161	.0286	.0503	.0869	.1441	.2112	0.0000
		5	0.0000	.0009	.0022	.0044	.0087	.0168	.0324	.0620	.1144	.1876	0.0000
7	5	1	0.0000	.0241	.0381	.0351	.0145	-.0159	-.0400	-.0372	.0041	.0579	0.0000
		2	0.0000	.0213	.0335	.0339	.0196	-.0056	-.0306	-.0370	-.0071	.0466	0.0000
		3	0.0000	.0172	.0294	.0322	.0232	.0031	-.0212	-.0341	-.0151	.0362	0.0000
		4	0.0000	.0145	.0256	.0301	.0252	.0100	-.0121	-.0293	-.0202	.0269	0.0000
		5	0.0000	.0121	.0221	.0275	.0259	.0152	-.0038	-.0233	-.0228	.0187	0.0000
7	3	1	0.0000	-.0342	-.0624	-.0792	-.0793	-.0592	-.0185	.0371	.0904	.1031	0.0000
		2	0.0000	-.0243	-.0459	-.0619	-.0687	-.0621	-.0383	.0038	.0560	.0852	0.0000
		3	0.0000	-.0167	-.0325	-.0463	-.0559	-.0576	-.0466	-.0176	.0291	.0690	0.0000
		4	0.0000	-.0109	-.0220	-.0329	-.0427	-.0489	-.0468	-.0292	.0095	.0548	0.0000
		5	0.0000	-.0069	-.0143	-.0224	-.0311	-.0390	-.0424	-.0339	-.0039	.0427	0.0000
7	1	1	0.0000	.0333	.0767	.1147	.1515	.1849	.2109	.2223	.2068	.1438	0.0000
		2	0.0000	.0143	.0307	.0486	.0694	.0933	.1192	.1425	.1522	.1228	0.0000
		3	0.0000	[illegible]	.0127	.0214	.0333	.0493	.0704	.0949	.1152	.1065	0.0000
		4	0.0000	.0025	.0055	.0100	.0168	.0274	.0434	.0654	.0894	.0935	0.0000
		5	0.0000	.0011	.0025	.0049	.0089	.0159	.0277	.0463	.0705	.0828	0.0000
8	5	1	0.0000	.0136	.0207	.0156	.0014	-.0150	-.0221	-.0105	.0162	.0302	0.0000
		2	0.0000	.0111	.0172	.0150	.0047	-.0094	-.0185	-.0129	.0090	.0256	0.0000
		3	0.0000	.0091	.0146	.0142	.0069	-.0047	-.0146	-.0136	.0035	.0215	0.0000
		4	0.0000	.0074	.0125	.0132	.0084	-.0009	-.0108	-.0132	-.0006	.0177	0.0000
		5	0.0000	.0061	.0106	.0120	.0092	.0020	-.0071	-.0119	-.0036	.0144	0.0000
8	3	1	0.0000	-.0243	-.0429	-.0505	-.0437	-.0220	.0111	.0455	.0644	.0476	0.0000
		2	0.0000	-.0169	-.0308	-.0389	-.0383	-.0271	-.0051	.0233	.0459	.0407	0.0000
		3	0.0000	-.0115	-.0219	-.0293	-.0320	-.0276	-.0142	.0079	.0310	.0344	0.0000
		4	0.0000	[illegible]	-.0151	-.0214	-.0254	-.0251	-.0180	-.0022	.0194	.0288	0.0000
		5	0.0000	[illegible]	-.0101	-.0150	-.0192	-.0212	-.0185	-.0079	.0107	.0239	0.0000
8	1	1	0.0000	.0423	.0816	.1174	.1480	.1693	.1767	.1645	.1271	.0635	0.0000
		2	0.0000	[illegible]	.0344	.0524	.0709	.0886	.1026	.1075	.0947	.0545	0.0000
		3	0.0000	[illegible]	.0147	.0237	.0346	.0474	.0610	.0718	.0718	.0473	0.0000
		4	0.0000	.0033	.0064	.0111	.0175	.0263	.0375	.0493	.0555	.0414	0.0000
		5	0.0000	.0013	.0029	.0054	.0092	.0151	.0237	.0347	.0436	.0366	0.0000

Table 4a. Oblate radial spheroidal functions $\tilde{X}_o^{(+)}(n,n,p;\bar{\xi})$

n	p\ $\bar{\xi}$	0.0	.3	.6	.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
0	1	1.000	.956	.835	.667	.487	.325	.198	.110	.056	.026	.011
	2	1.000	.914	.698	.445	.237	.105	.039	.012	.003	.001	.000
	3	1.000	.874	.583	.297	.115	.034	.008	.001	.000	.000	.000
1	1	1.000	.998	.974	.897	.760	.585	.407	.256	.146	.075	.035
	2	1.000	.954	.814	.598	.370	.190	.081	.028	.008	.002	.000
	3	1.000	.912	.680	.399	.180	.062	.016	.003	.000	.000	.000
2	1	1.000	1.042	1.136	1.207	1.188	1.055	.839	.596	.379	.217	.111
	2	1.000	.996	.949	.805	.578	.343	.166	.066	.021	.006	.001
	3	1.000	.952	.793	.537	.281	.111	.033	.007	.001	.000	.000
3	1	1.000	1.088	1.325	1.624	1.855	1.902	1.728	1.387	.987	.623	.351
	2	1.000	1.040	1.107	1.083	.903	.618	.342	.153	.055	.016	.004
	3	1.000	.994	.924	.723	.440	.200	.068	.017	.003	.000	.000
4	1	1.000	1.136	1.545	2.185	2.898	3.429	3.558	3.227	2.565	1.795	1.111
	2	1.000	1.086	1.290	1.457	1.411	1.113	.704	.356	.144	.047	.012
	3	1.000	1.038	1.078	.972	.687	.361	.139	.039	.008	.001	.000
5	1	1.000	1.186	1.802	2.940	4.527	6.182	7.326	7.505	6.670	5.169	3.513
	2	1.000	1.134	1.505	1.961	2.203	2.007	1.450	.827	.374	.135	.039
	3	1.000	1.084	1.257	1.308	1.073	.652	.287	.091	.021	.004	.000
6	1	1.000	1.238	2.101	3.955	7.071	11.145	15.085	17.457	17.341	14.882	11.109
	2	1.000	1.184	1.755	2.638	3.442	3.618	2.985	1.925	.973	.389	.123
	3	1.000	1.131	1.466	1.759	1.675	1.175	.591	.212	.055	.010	.001
7	1	1.000	1.293	2.450	5.321	11.045	20.091	31.062	40.604	45.086	42.849	35.130
	2	1.000	1.236	2.047	3.549	5.376	6.523	6.147	4.477	2.531	1.119	.390
	3	1.000	1.181	1.709	2.367	2.617	2.118	1.216	.494	.142	.029	.004
8	1	1.000	1.349	2.857	7.159	17.253	36.220	63.960	94.443	117.225	123.371	111.090
	2	1.000	1.290	2.387	4.775	8.398	11.759	12.658	10.412	6.580	3.223	1.234
	3	1.000	1.233	1.994	3.185	4.088	3.818	2.505	1.148	.369	.084	.014
9	1	1.000	1.409	3.332	9.631	26.950	65.297	131.701	219.669	304.784	355.216	351.297
	2	1.000	1.347	2.783	6.424	13.118	21.199	26.063	24.219	17.109	9.279	3.903
	3	1.000	1.288	2.325	4.284	6.385	6.882	5.158	2.670	.960	.242	.043

Table 4b. Oblate radial spheroidal functions $\tilde{X}_e^{(-)}(n,n-1,p;\bar{\xi})$

n	p\ $\bar{\xi}$	0.0	.3	.6	.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
1	1	0.000	.287	.501	.600	.584	.487	.356	.232	.135	.071	.033
	2	0.000	.274	.419	.400	.284	.158	.070	.026	.008	.002	.000
	3	0.000	.262	.350	.267	.138	.051	.014	.003	.000	.000	.000
2	1	0.000	.299	.584	.808	.912	.878	.733	.539	.358	.203	.105
	2	0.000	.286	.488	.539	.444	.285	.145	.059	.020	.005	.001
	3	0.000	.274	.408	.359	.216	.093	.029	.007	.001	.000	.000
3	1	0.000	.313	.682	1.087	1.425	1.583	1.510	1.253	.911	.585	.333
	2	0.000	.299	.569	.725	.694	.514	.299	.138	.051	.015	.004
	3	0.000	.286	.476	.483	.338	.167	.059	.015	.003	.000	.000
4	1	0.000	.326	.795	1.462	2.226	2.853	3.110	2.913	2.368	1.683	1.054
	2	0.000	.312	.664	.975	1.084	.926	.615	.321	.133	.044	.012
	3	0.000	.298	.555	.650	.527	.301	.122	.035	.007	.001	.000
5	1	0.000	.341	.927	1.967	3.478	5.144	6.404	6.776	6.157	4.847	3.333
	2	0.000	.326	.774	1.312	1.693	1.670	1.267	.747	.346	.127	.037
	3	0.000	.311	.647	.875	.824	.542	.251	.082	.019	.003	.008
6	1	0.000	.356	1.081	2.646	5.432	9.273	13.187	15.761	16.007	13.956	10.539
	2	0.000	.340	.903	1.765	2.644	3.010	2.610	1.738	.899	.365	.117
	3	0.000	.325	.754	1.177	1.287	.977	.516	.192	.050	.010	.001
7	1	0.000	.371	1.261	3.559	8.485	16.717	27.153	36.668	41.618	40.181	33.327
	2	0.000	.355	1.053	2.374	4.130	5.427	5.373	4.042	2.336	1.050	.370
	3	0.000	.339	.880	1.583	2.010	1.762	1.063	.446	.131	.027	.004
8	1	0.000	.388	1.470	4.789	13.254	30.137	55.911	85.269	108.207	115.691	105.389
	2	0.000	.371	1.228	3.194	6.452	9.784	11.065	9.401	6.074	3.022	1.171
	3	0.000	.354	1.026	2.130	3.140	3.176	2.190	1.036	.341	.079	.013
9	1	0.000	.405	1.714	6.443	20.704	54.330	115.127	198.330	281.339	333.103	333.270
	2	0.000	.387	1.432	4.297	10.078	17.639	22.784	21.866	15.793	8.701	3.702
	3	0.000	.370	1.196	2.866	4.905	5.726	4.509	2.411	.887	.227	.041
10	1	0.000	.423	1.999	8.668	32.340	97.946	237.062	461.304	731.481	959.082	1050.00
	2	0.000	.404	1.670	5.781	15.742	31.798	46.914	50.859	41.062	25.053	11.708
	3	0.000	.386	1.395	3.856	7.662	10.323	9.284	5.607	2.305	.654	.130

Table 4c. Oblate radial spheroidal functions $\tilde{X}_r^{(+)}(n,n-2,p;\bar{\xi})$

n	r	p \ $\bar{\xi}$	0.0	.3	.6	.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
2	0	1	1.000	1.128	1.437	1.747	1.889	1.786	1.480	1.083	.703	.407	.211
		2	1.000	1.042	1.090	1.008	.770	.476	.237	.096	.031	.008	.002
		3	1.000	.982	.871	.627	.343	.140	.042	.009	.002	.000	.000
2	1	1	1.000	.870	.535	.127	-.214	-.406	-.443	-.376	-.267	-.164	-.089
		2	1.000	.703	.054	-.478	-.637	-.502	-.286	-.125	-.043	-.012	-.003
		3	1.000	.530	-.335	-.754	-.611	-.302	-.102	-.024	-.004	-.001	-.000
3	0	1	1.000	1.318	2.223	3.486	4.660	5.275	5.110	4.284	3.140	2.028	1.161
		2	1.000	1.174	1.564	1.840	1.735	1.285	.750	.348	.129	.039	.009
		3	1.000	1.076	1.169	1.046	.699	.339	.119	.031	.006	.001	.000
3	1	1	1.000	.948	.777	.489	.146	-.154	-.334	-.379	-.326	-.233	-.142
		2	1.000	.820	.356	-.159	-.462	-.478	-.327	-.166	-.065	-.020	-.005
		3	1.000	.666	-.054	-.571	-.598	-.355	-.139	-.038	-.007	-.001	-.000
4	0	1	1.000	1.546	3.333	6.461	10.376	13.809	15.444	14.728	12.122	8.697	5.482
		2	1.000	1.355	2.315	3.414	3.908	3.425	2.318	1.226	.512	.171	.046
		3	1.000	1.209	1.648	1.842	1.497	.862	.352	.103	.022	.003	.000
4	1	1	1.000	1.007	.984	.843	.551	.171	-.173	-.383	-.434	-.371	-.261
		2	1.000	.907	.607	.153	-.254	-.428	-.372	-.224	-.101	-.036	-.010
		3	1.000	.781	.222	-.333	-.529	-.389	-.180	-.057	-.013	-.002	-.000
5	0	1	1.000	1.800	4.794	11.195	21.290	33.038	42.453	45.896	42.330	33.690	23.352
		2	1.000	1.574	3.378	6.006	8.317	8.540	6.658	3.999	1.874	.693	.204
		3	1.000	1.386	2.379	3.281	3.207	2.173	1.026	.342	.081	.014	.002
5	1	1	1.000	1.061	1.194	1.262	1.121	.726	.189	-.295	-.576	-.626	-.518
		2	1.000	.974	.827	.468	-.009	-.357	-.435	-.320	-.168	-.067	-.021
		3	1.000	.871	.468	-.081	-.429	-.419	-.233	-.085	-.021	-.004	-.000
6	0	1	1.000	2.078	6.671	18.498	41.361	74.543	109.803	134.387	138.753	122.416	93.263
		2	1.000	1.822	4.789	10.348	16.708	19.978	17.884	12.171	6.391	2.621	.849
		3	1.000	1.599	3.406	5.696	6.619	5.241	2.848	1.077	.287	.055	.008
6	1	1	1.000	1.114	1.424	1.801	1.992	1.755	1.056	.139	-.641	-1.045	-1.059
		2	1.000	1.034	1.044	.830	.332	-.217	-.508	-.478	-.297	-.135	-.047
		3	1.000	.945	.690	.185	-.302	-.452	-.312	-.134	-.038	-.008	-.001

Table 4d. Oblate radial spheroidal functions $\tilde{X}_r^{(-)}(n,n-3,p;\bar{\xi})$

n	r	p \ $\bar{\xi}$	0.0	.3	.6	.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
3	0	1	0.000	.324	.764	1.309	1.810	2.084	2.038	1.720	1.266	.820	.478
		2	0.000	.307	.620	.833	.830	.632	.375	.176	.066	.020	.005
		3	0.000	.292	.508	.539	.389	.197	.071	.018	.003	.000	.000
3	1	1	0.000	.275	.419	.378	.199	-.014	-.172	-.236	-.220	-.165	-.104
		2	0.000	.253	.268	.076	-.125	-.198	-.158	-.087	-.036	-.012	-.003
		3	0.000	.225	.149	-.077	-.179	-.132	-.058	-.017	-.003	-.001	-.000
4	0	1	0.000	.353	1.005	2.116	3.540	4.829	5.487	5.288	4.386	3.164	2.002
		2	0.000	.332	.797	1.306	1.569	1.413	.972	.520	.219	.073	.020
		3	0.000	.313	.641	.822	.711	.424	.177	.052	.011	.002	.000
4	1	1	0.000	.290	.514	.590	.474	.219	-.059	-.253	-.322	-.298	-.211
		2	0.000	.267	.355	.208	-.041	-.201	-.211	-.139	-.066	-.024	-.007
		3	0.000	.243	.223	-.007	-.175	-.169	-.088	-.030	-.007	-.001	-.000
5	0	1	0.000	.385	1.317	3.366	6.742	10.888	14.188	15.563	14.501	11.627	8.104
		2	0.000	.360	1.032	2.050	2.949	3.124	2.485	1.513	.716	.267	.079
		3	0.000	.337	.818	1.266	1.310	.917	.442	.150	.036	.006	.001
5	1	1	0.000	.305	.618	.860	.897	.666	.251	-.169	-.439	-.512	-.439
		2	0.000	.283	.448	.378	.104	-.169	-.273	-.222	-.123	-.050	-.016
		3	0.000	.260	.304	.092	-.149	-.209	-.132	-.052	-.014	-.003	-.000
6	0	1	0.000	.421	1.713	5.260	12.510	23.447	35.434	44.127	46.120	41.050	31.480
		2	0.000	.391	1.335	3.193	5.466	6.779	6.215	4.299	2.283	.944	.308
		3	0.000	.365	1.049	1.954	2.407	1.975	1.098	.422	.114	.022	.003
6	1	1	0.000	.320	.735	1.216	1.560	1.519	1.016	.243	-.467	-.867	-.917
		2	0.000	.299	.550	.600	.343	-.063	-.331	-.351	-.231	-.108	-.038
		3	0.000	.277	.393	.225	-.085	-.246	-.197	-.091	-.027	-.006	-.001
7	0	1	0.000	.459	2.208	8.084	22.708	49.588	86.085	121.537	142.339	140.540	118.519
		2	0.000	.425	1.720	4.917	9.963	14.418	15.199	11.926	7.100	3.258	1.168
		3	0.000	.396	1.345	3.001	4.383	4.202	2.689	1.172	.355	.076	.012
7	1	1	0.000	.335	.869	1.690	2.608	3.135	2.802	1.589	.000	-1.287	-1.074
		2	0.000	.314	.665	.894	.735	.193	-.346	-.548	-.437	-.236	-.094
		3	0.000	.293	.492	.402	.033	-.271	-.291	-.160	-.055	-.013	-.002

Table 4e. Oblate radial spheroidal functions $\tilde{X}_r^{(+)}(n,n-4,p;\tilde{\xi})$

n	r	p\ξ	0.	.3	.6	.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
4	0	1	1.	1.699	4.112	8.590	14.465	13.847	22.651	21.900	18.202	13.153	8.335
		2	1.	1.462	2.773	4.385	5.245	4.727	3.258	1.745	.735	.247	.066
		3	1.	1.281	1.909	2.274	1.925	1.137	.473	.140	.033	.005	.001
		4	1.	1.151	1.373	1.237	.741	.287	.072	.012	.001	.000	.000
		5	1.	1.058	1.036	.713	.304	.077	.012	.001	.000	.000	.000
4	1	1	1.	1.068	1.180	1.145	.848	.355	-.147	-.484	-.595	-.528	-.380
		2	1.	.943	.705	.257	-.203	-.434	-.403	-.251	-.116	-.041	-.012
		3	1.	.815	.302	-.266	-.506	-.392	-.187	-.060	-.013	-.002	-.000
		4	1.	.669	-.072	-.576	-.520	-.241	-.066	-.012	-.001	-.000	-.000
		5	1.	.513	-.388	-.707	-.415	-.123	-.020	-.002	-.000	-.000	-.000
4	2	1	1.	.767	.220	-.306	-.535	-.418	-.109	.187	.344	.354	.276
		2	1.	.476	-.440	-.710	-.223	.351	.541	.409	.212	.080	.023
		3	1.	.200	-.781	-.438	.408	.647	.398	.146	.036	.006	.001
		4	1.	-.045	-.864	.031	.726	.518	.175	.034	.004	.000	.000
		5	1.	-.257	-.774	.449	.752	.314	.062	.007	.000	.000	.000
5	0	1	1.	2.155	6.961	18.391	37.836	61.762	82.064	90.768	85.074	68.506	47.901
		2	1.	1.836	4.723	9.553	14.037	15.096	12.136	7.441	3.539	1.323	.393
		3	1.	1.577	3.205	4.936	5.166	3.656	1.777	.604	.146	.025	.003
		4	1.	1.373	2.202	2.569	1.910	.988	.261	.049	.006	.000	.000
		5	1.	1.221	1.560	1.379	.728	.222	.039	.004	.000	.000	.000
5	1	1	1.	1.241	1.851	2.464	2.589	1.964	.784	-.439	-1.244	-1.477	-1.276
		2	1.	1.066	1.398	.800	.177	-.393	-.595	-.474	-.261	-.107	-.034
		3	1.	.937	.631	.061	-.399	-.460	-.275	-.104	-.027	-.005	-.001
		4	1.	.810	.247	-.352	-.504	-.296	-.098	-.020	-.003	-.000	-.000
		5	1.	.669	-.097	-.582	-.448	-.161	-.031	-.003	-.000	-.000	-.000
5	2	1	1.	.887	.562	.117	-.262	-.406	-.295	-.050	.171	.278	.273
		2	1.	.651	-.100	-.583	-.419	.382	.407	.405	.248	.108	.035
		3	1.	.386	-.583	-.594	.142	.563	.440	.191	.053	.010	.001
		4	1.	.132	-.811	-.226	.589	.561	.227	.051	.007	.001	.000
		5	1.	-.096	-.832	.212	.736	.379	.087	.011	.001	.000	.000
6	0	1	1.	2.678	11.016	35.775	88.441	169.994	261.236	329.071	346.714	310.416	239.091
		2	1.	2.279	7.533	18.770	33.147	41.969	39.013	27.240	14.563	6.052	1.979
		3	1.	1.944	5.112	9.711	12.202	10.152	5.699	2.203	.597	.115	.016
		4	1.	1.666	3.451	4.950	4.397	2.394	.809	.173	.024	.002	.000
		5	1.	1.444	2.337	2.501	1.555	.550	.111	.013	.001	.000	.000
6	1	1	1.	1.462	2.822	4.562	5.819	4.964	1.788	-2.518	-6.075	-7.610	-7.086
		2	1.	1.220	1.605	1.430	.254	-1.293	-2.115	-1.889	-1.160	-.526	-.183
		3	1.	1.053	.906	.144	-.824	-1.158	-.812	-.355	-.104	-.021	-.003
		4	1.	.921	.444	-.414	-.870	-.634	-.248	-.058	-.008	-.001	-.000
		5	1.	.793	.075	-.690	-.705	-.312	-.071	-.009	-.001	-.000	-.000
6	2	1	1.	.967	.775	.245	-.737	-2.050	-3.322	-4.122	-4.206	-3.638	-2.715
		2	1.	.786	.158	-.677	-1.264	-1.305	-.934	-.495	-.200	-.063	-.015
		3	1.	.552	-.410	-.970	-.695	-.153	.097	.089	.034	.008	.001
		4	1.	.302	-.784	-.743	.016	.318	.185	.051	.008	.001	.000
		5	1.	.063	-.936	-.295	.437	.338	.096	.014	.001	.000	.000
7	0	1	1.	3.280	16.818	66.515	196.604	443.612	736.863	1127.303	1333.899	1326.901	1125.214
		2	1.	2.804	11.741	35.385	76.435	114.035	122.649	97.557	58.679	27.099	9.761
		3	1.	2.398	8.149	19.310	29.446	29.031	18.927	8.357	2.551	.548	.084
		4	1.	2.053	5.626	10.277	11.236	7.315	2.890	.708	.110	.011	.001
		5	1.	1.769	3.874	5.435	4.252	1.826	.437	.059	.005	.000	.000
7	1	1	1.	1.720	4.257	9.033	14.969	18.935	17.650	10.578	.724	-7.564	-11.545
		2	1.	1.432	2.581	3.619	3.183	1.024	-1.312	-2.278	-1.871	-1.028	-.413
		3	1.	1.214	1.546	1.248	.147	-.796	-.885	-.494	-.173	-.040	-.006
		4	1.	1.055	.920	.241	-.473	-.565	-.283	-.079	-.013	-.001	-.000
		5	1.	.925	.489	-.230	-.517	-.299	-.033	-.012	-.001	-.000	-.000
7	2	1	1.	1.032	1.060	.931	.552	.031	-.376	-.467	-.259	.059	.295
		2	1.	.895	.533	-.019	-.397	-.313	.046	.294	.297	.180	.077
		3	1.	.700	-.001	-.511	-.298	.221	.402	.260	.098	.024	.004
		4	1.	.483	-.450	-.543	.169	.511	.315	.097	.017	.002	.000
		5	1.	.243	-.721	-.255	.542	.474	.154	.025	.002	.000	.000

Table 4f. Oblate radial spheroidal functions $\tilde{X}_r^{(-)}(n,n-5,p;\tilde{\xi})$

n	ℓ	p\ξ	0.	.3	.6	.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
5	0	1	0.	.431	1.471	3.373	8.257	13.562	18.393	20.067	18.845	15.197	10.637
		2	0.	.372	1.132	2.362	3.512	3.801	3.368	1.887	.899	.337	.100
		3	0.	.345	.884	1.429	1.522	1.087	.531	.181	.044	.008	.001
		4	0.	.322	.700	.880	.674	.318	.094	.018	.002	.000	.000
		5	0.	.335	.561	.552	.304	.095	.017	.002	.000	.000	.000
5	1	1	0.	.313	.685	1.020	1.125	.382	.372	-.172	-.539	-.650	-.566
		2	0.	.291	.485	.439	.146	-.170	-.303	-.254	-.143	-.059	-.019
		3	0.	.267	.328	.117	-.145	-.221	-.145	-.058	-.015	-.003	-.000
		4	0.	.241	.202	-.052	-.189	-.133	-.048	-.010	-.001	-.000	-.000
		5	0.	.213	.104	-.130	-.155	-.065	-.014	-.002	-.000	-.000	-.000
5	2	1	0.	.263	.341	.201	-.029	-.181	-.180	-.068	.061	.137	.147
		2	0.	.225	.145	-.089	-.160	-.033	.101	.130	.088	.040	.014
		3	0.	.189	.015	-.147	-.035	.106	.110	.053	.016	.003	.000
		4	0.	.155	-.063	-.106	.068	.112	.053	.013	.002	.000	.000
		5	0.	.125	-.101	-.039	.107	.075	.020	.003	.000	.000	.000
6	0	1	0.	.455	2.115	7.165	18.175	35.520	55.188	70.043	74.190	66.679	51.506
		2	0.	.413	1.605	4.196	7.621	9.821	9.236	6.501	3.495	1.458	.478
		3	0.	.387	1.231	2.486	3.233	2.748	1.564	.611	.167	.032	.004
		4	0.	.359	.955	1.493	1.392	.781	.269	.058	.008	.001	.000
		5	0.	.335	.750	.911	.610	.226	.047	.006	.000	.000	.000
6	1	1	0.	.344	.913	1.718	2.424	2.539	1.832	.573	-.662	-1.406	-1.546
		2	0.	.315	.650	.796	.525	-.016	-.417	-.479	-.325	-.156	-.056
		3	0.	.289	.454	.304	-.062	-.282	-.242	-.115	-.035	-.007	-.001
		4	0.	.264	.302	.042	-.197	-.190	-.083	-.020	-.003	-.000	-.000
		5	0.	.240	.183	-.089	-.186	-.097	-.024	-.003	-.000	-.000	-.000
6	2	1	0.	.281	.446	.403	.171	-.100	-.241	-.198	-.042	.109	.184
		2	0.	.246	.237	-.001	-.174	-.112	.054	.140	.120	.065	.025
		3	0.	.211	.082	-.138	-.093	.077	.127	.075	.026	.006	.001
		4	0.	.170	-.020	-.134	.030	.120	.072	.021	.003	.000	.000
		5	0.	.147	-.080	-.076	.196	.091	.029	.004	.000	.000	.000
7	0	1	0.	.517	2.987	12.483	38.211	88.187	158.777	229.805	273.882	273.872	233.150
		2	0.	.472	2.254	7.282	15.984	24.354	26.560	21.328	12.906	5.993	2.167
		3	0.	.433	1.712	4.277	6.729	6.767	4.470	1.991	.612	.132	.020
		4	0.	.400	1.311	2.534	2.859	1.398	.759	.188	.029	.003	.000
		5	0.	.370	1.014	1.519	1.229	.539	.130	.018	.001	.000	.000
7	1	1	0.	.377	1.211	2.821	4.931	6.463	6.197	3.848	.422	-2.531	-3.998
		2	0.	.345	.864	1.363	1.293	.481	-.471	-.899	-.758	-.423	-.172
		3	0.	.314	.612	.596	.133	-.334	-.411	-.238	-.085	-.020	-.003
		4	0.	.288	.423	.191	-.180	-.273	-.147	-.042	-.007	-.001	-.000
		5	0.	.263	.277	-.018	-.216	-.147	-.043	-.007	-.001	-.000	-.000
7	2	1	0.	.293	.557	.560	.500	.132	-.221	-.353	-.232	.009	.205
		2	0.	.265	.336	.131	-.141	-.191	-.023	.135	.161	.104	.046
		3	0.	.237	.161	-.098	-.147	.029	.136	.103	.042	.011	.002
		4	0.	[illegible]	.035	-.148	-.020	.120	.093	.032	.006	.001	.000
		5	0.	.163	-.046	-.111	.073	.107	.041	.007	.001	.000	.000
8	0	1	0.	[illegible]	4.151	21.144	77.486	211.129	430.966	719.616	963.493	1070.726	1003.741
		2	0.	[illegible]	3.127	12.350	32.509	53.263	73.452	67.147	45.662	23.572	9.386
		3	0.	[illegible]	2.366	7.238	13.680	16.201	12.378	6.280	2.169	[illegible]	.088
		4	0.	[illegible]	1.799	4.264	5.785	4.526	2.695	.590	.103	.012	.001
		5	0.	[illegible]	1.378	2.531	2.464	1.273	.357	.056	.005	[illegible]	.000
8	1	1	0.	[illegible]	1.592	4.521	9.604	15.300	18.181	15.400	7.380	-2.712	-9.218
		2	0.	[illegible]	1.141	2.259	2.309	1.836	-.145	-1.588	-1.753	-1.151	-.530
		3	0.	[illegible]	.814	1.058	.556	-.316	-.695	-.502	-.208	-.056	-.010
		4	0.	[illegible]	.574	.426	-.106	-.389	-.267	-.091	-.018	[illegible]	-.000
		5	0.	[illegible]	.393	.097	-.240	-.223	-.080	-.014	-.001	[illegible]	-.000
8	2	1	0.	[illegible]	.677	.394	1.033	.653	.021	-.477	-.559	-.264	.141
		2	0.	[illegible]	.443	.313	-.039	-.254	-.140	.098	.208	.163	.087
		3	0.	[illegible]	.251	-.023	-.186	-.041	.132	.138	.067	.020	.004
		4	0.	[illegible]	.104	-.140	-.077	.106	.117	.048	.010	.001	.000
		5	0.	[illegible]	[illegible]	-.178	.039	.121	[illegible]	.012	.001	[illegible]	.000

Table 5a. Eigenvalues of the separation constant $A_0(n,n-2,c) - c$

c \ n	2	3	4	5	6
.00	0.0000	2.0000	6.0000	12.0000	20.0000
.20	.2441	[illegible]	6.1039	12.0955	20.0704
.40	.4474	2.2323	6.2079	12.1646	20.1364
.60	.6167	2.4000	6.2331	12.2381	20.1983
.80	.7581	2.5041	6.3305	12.3063	20.2566
1.00	.8769	2.5969	6.4560	12.3699	20.3114
1.20	.9773	2.6739	6.5253	12.4291	20.3631
1.40	1.0629	2.7544	6.5891	12.4845	20.4119
1.60	1.1364	2.8217	6.6480	12.5364	20.4581
1.80	1.2000	2.8825	6.7025	12.5850	20.5018
2.00	1.2554	2.9377	6.7536	12.6307	20.5432
2.20	1.3041	2.9881	6.8030	12.6736	20.5824
2.40	1.3471	3.0342	6.8437	12.7141	20.6197
2.60	1.3853	3.0764	6.8845	12.7523	20.6552
2.80	1.4195	3.1153	6.9227	12.7884	20.6890
3.00	1.4502	3.1511	6.9584	12.8226	20.7212
3.20	1.4779	3.1943	6.9919	12.8549	20.7519
3.40	1.5030	3.2151	7.0235	12.8356	20.7812
3.60	1.5259	3.2437	7.0531	12.9147	20.8092
3.80	1.5468	3.2704	7.0811	12.9424	20.8360
4.00	1.5660	3.2955	7.1076	12.9688	20.8616
4.20	1.5837	3.3185	7.1326	12.9939	20.8862
4.40	1.6000	3.3403	7.1562	13.0179	20.9098
4.60	1.6151	3.3610	7.1787	13.0407	20.9324
4.80	1.6291	3.3803	7.2000	13.0626	20.9541
5.00	1.6422	3.3985	7.2203	13.0835	20.9750

$\{A_0(n,n-2,c) - c\}/c$

(1/c) \ n	2	3	4	5	6
.20	.3284	.6797	1.4441	2.6167	4.1950
.19	.3150	.6500	1.3766	2.4308	3.9902
.18	.3013	.6193	1.3089	2.3647	3.7852
.17	.2874	.5895	1.2408	2.2382	3.5799
.16	.2731	.5533	1.1724	2.1114	3.3743
.15	.2585	.5276	1.1035	1.9842	3.1683
.14	.2437	.4961	1.0343	1.8566	2.9619
.13	.2285	.4641	.9645	1.7285	2.7551
.12	.2130	.4317	.8944	1.6000	2.5479
.11	.1972	.3939	.8237	1.4710	2.3401
.10	.1810	.3655	.7525	1.3414	2.1318
.09	.1646	[illegible]	.6806	1.2112	1.9229
.08	.1477	[illegible]	.6082	1.0803	1.7133
.07	.1306	.2623	.5351	.9487	1.5030
.06	.1130	[illegible]	.4613	.8163	1.2918
.05	.0951	[illegible]	.3867	.6830	1.0797
.04	.0769	.1540	.3113	.5488	.8665
.03	.0582	.1155	.2350	.4135	.6521
.02	.0392	.0784	.1577	.2770	.4363
.01	.0198	.0396	.0794	.1392	.2190
.00	.0000	.0000	.0000	.0000	.0000

Table 5b. Eigenvalues of the separation constant $A_2(n,n-2,c) - c$

c \ n	2	3	4	5	6
.00	6.0000	12.0000	20.0000	30.0000	42.0000
.20	5.5559	12.6498	20.6911	30.7145	42.7296
.40	7.1526	13.3172	21.3921	31.4354	43.4636
.60	7.7833	14.0003	22.1019	32.1619	44.2017
.80	8.4419	14.6959	22.8195	32.8937	44.9434
1.00	9.1231	15.4031	23.5440	33.6301	45.6886
1.20	9.8227	16.1201	24.2747	34.3709	46.4369
1.40	10.5371	16.8456	25.0109	35.1155	47.1881
1.60	11.2636	17.5783	25.7520	35.8636	47.9419
1.80	12.0000	18.3175	26.4975	36.6150	48.6982
2.00	12.7446	19.0623	27.2470	37.3693	49.4568
2.20	13.4959	19.8119	28.0000	38.1264	50.2176
2.40	14.2529	20.5658	28.7563	38.8859	50.9803
2.60	15.0147	21.3236	29.5155	39.6477	51.7448
2.80	15.7805	22.0847	30.2773	40.4116	52.5110
3.00	16.5498	22.8489	31.0416	41.1774	53.2788
3.20	17.3221	23.6157	31.8081	41.9451	54.0481
3.40	18.0970	24.3843	32.5765	42.7144	54.8188
3.60	18.8741	25.1563	33.3469	43.4853	55.5908
3.80	19.6532	25.9296	34.1189	44.2576	56.3640
4.00	20.4340	26.7047	34.8924	45.0312	57.1384
4.20	21.2163	27.4814	35.6674	45.8061	57.9138
4.40	22.0000	28.2595	36.4438	46.5821	58.6902
4.60	22.7849	29.0393	37.2213	47.3593	59.4676
4.80	23.5709	29.8197	38.0000	48.1374	60.2459
5.00	24.3578	30.6015	38.7797	48.9165	61.0250

$\{A_2(n,n-2,c) - c\}/c$

(1/c) \ n	2	3	4	5	6
.20	4.8716	6.1203	7.7559	9.7833	12.2050
.19	4.8250	6.0100	7.5634	9.4892	11.7898
.18	4.7787	5.9001	7.3711	9.1953	11.3748
.17	4.7326	5.7903	7.1792	8.9018	10.9601
.16	4.6869	5.6812	6.9876	8.6086	10.5457
.15	4.6415	5.5724	6.7965	8.3158	10.1317
.14	4.5963	5.4639	6.6057	8.0234	9.7181
.13	4.5515	5.3559	6.4155	7.7315	9.3049
.12	4.5070	5.2483	6.2256	7.4400	8.8921
.11	4.4628	5.1412	6.0363	7.1490	8.4799
.10	4.4190	5.0345	5.8475	6.8586	8.0682
.09	4.3754	4.9284	5.6594	6.5688	7.6571
.08	4.3323	4.8227	5.4718	6.2797	7.2467
.07	4.2894	4.7177	5.2849	5.9913	6.8370
.06	4.2470	4.6132	5.0987	5.7037	6.4282
.05	4.2049	4.5093	4.9133	5.4170	6.0203
.04	4.1631	4.4060	4.7237	5.1312	5.6135
.03	4.1218	4.3034	4.5450	4.8465	5.2079
.02	4.0808	4.2016	4.3623	4.5630	4.8037
.01	4.0402	4.1004	4.1806	4.2808	4.4010
.00	4.0000	4.0000	4.0000	4.0000	4.0000

Table 5c. Eigenvalues of the separation constant $A_1(n,n-3,c) - c$

c \ n	3	4	5	6	7
.00	2.0000	6.0000	12.0000	20.0000	30.0000
.20	2.8644	6.7318	12.6589	20.6125	30.5803
.40	3.6969	7.4413	13.3027	21.2140	31.1523
.60	4.4969	8.1319	13.9322	21.8052	31.7164
.80	5.2644	8.8000	14.5461	22.3864	32.2730
1.00	6.0000	9.4502	15.1511	22.9584	32.8226
1.20	6.7049	10.0825	15.7422	23.5216	33.3653
1.40	7.3808	10.6981	16.3219	24.0764	33.9017
1.60	8.0297	11.2981	16.8910	24.6235	34.4320
1.80	8.6538	11.8838	17.4501	25.1631	34.9566
2.00	9.2554	12.4560	18.0000	25.6959	35.4758
2.20	9.8368	13.0153	18.5412	26.2221	35.9899
2.40	10.4000	13.5645	19.0744	26.7422	36.4991
2.60	10.9471	14.1027	19.6000	27.2565	37.0037
2.80	11.4799	14.6313	20.1186	27.7653	37.5039
3.00	12.0000	15.1511	20.6307	28.2691	38.0000
3.20	12.5089	15.6623	21.1367	28.7680	38.4922
3.40	13.0079	16.1674	21.6370	29.2625	38.9807
3.60	13.4981	16.6650	22.1320	29.7526	39.4657
3.80	13.9805	17.1564	22.6221	30.2388	39.9473
4.00	14.4560	17.6422	23.1076	30.7212	40.4258
4.20	14.9253	18.1227	23.5887	31.2000	40.9013
4.40	15.3891	18.5983	24.0659	31.6755	41.3740
4.60	15.8480	19.0695	24.5393	32.1478	41.8439
4.80	16.3025	19.5367	25.0092	32.6171	42.3113
5.00	16.7530	20.0000	25.4758	33.0835	42.7763

$\{A_1(n,n-3,c) - c\}/c$

(1/C) \ n	3	4	5	6	7
.20	3.3506	4.0000	5.0352	6.6167	8.5553
.19	3.2947	3.9148	4.9562	6.4017	8.2431
.18	3.2376	3.8285	4.8162	6.1858	7.9301
.17	3.1794	3.7410	4.6750	5.9690	7.6162
.16	3.1200	3.6522	4.5327	5.7510	7.3014
.15	3.0594	3.5630	4.3891	5.5319	6.9855
.14	2.9976	3.4724	4.2442	5.3115	6.6685
.13	2.9345	3.3774	4.0977	5.0898	6.3502
.12	2.8702	3.2828	3.9497	4.8665	6.0305
.11	2.8047	3.1866	3.8000	4.6416	5.7093
.10	2.7379	3.0887	3.6485	4.4149	5.3862
.09	2.6698	2.9930	3.4950	4.1861	5.0613
.08	2.6004	2.8874	3.3394	3.9552	4.7342
.07	2.5298	2.7933	3.1816	3.7220	4.4046
.06	2.4579	2.6937	3.0213	3.4861	4.0723
.05	2.3847	2.5770	2.8585	3.2473	3.7370
.04	2.3102	2.4613	2.6930	3.0054	3.3983
.03	2.2345	2.3434	2.5246	2.7600	3.0557
.02	2.1576	2.2377	2.3530	2.5109	2.7088
.01	2.0794	2.1133	2.1782	2.2577	2.3571
.00	2.0000	2.0000	2.0000	2.0000	2.0000

Table 5d. Eigenvalues of the separation constant $A_3(n,n-3,c) - c$

c \ n	3	4	5	6	7
.00	12.0000	20.0000	30.0000	42.0000	56.0000
.20	12.7356	20.8682	30.9411	42.9875	57.0197
.40	13.5031	21.7582	31.8973	43.9860	58.0477
.60	14.3031	22.6691	32.8678	44.9948	59.0836
.80	15.1356	23.6000	33.8519	46.0136	60.1270
1.00	16.0000	24.5438	34.8489	47.0416	61.1774
1.20	16.8951	25.5175	35.8578	48.0784	62.2347
1.40	17.8192	26.5013	36.8781	49.1236	63.2983
1.60	18.7703	27.5019	37.9090	50.1765	64.3680
1.80	19.7462	28.5162	38.9499	51.2369	65.4434
2.00	20.7446	29.5440	40.0000	52.3041	66.5242
2.20	21.7632	30.5841	41.0538	53.3779	67.6101
2.40	22.8000	31.6355	42.1256	54.4578	68.7009
2.60	23.8529	32.6973	43.2000	55.5435	69.7963
2.80	24.9201	33.7687	44.2814	56.6347	70.8961
3.00	26.0000	34.8489	45.3693	57.7309	72.0000
3.20	27.0911	35.9371	46.4633	58.8320	73.1078
3.40	28.1921	37.0326	47.5630	59.9375	74.2193
3.60	29.3019	38.1350	48.6680	61.0474	75.3343
3.80	30.4195	39.2436	49.7779	62.1612	76.4527
4.00	31.5440	40.3579	50.8924	63.2788	77.5742
4.20	32.6747	41.4773	52.0113	64.4000	78.6987
4.40	33.8109	42.6017	53.1341	65.5245	79.8260
4.60	34.9520	43.7305	54.2607	66.6522	80.9561
4.80	36.0975	44.8633	55.3908	67.7829	82.0887
5.00	37.2470	46.0000	56.5242	68.9165	83.2237

$\{A_3(n,n-3,c) - c\}/c$

(1/C) \ n	3	4	5	6	7
.20	7.4494	9.2000	11.3048	13.7833	16.6447
.19	7.3653	9.0252	11.0238	13.3783	16.0969
.18	7.2824	8.8515	10.7438	12.9742	15.5499
.17	7.2006	8.6790	10.4650	12.5710	15.0038
.16	7.1200	8.5073	10.1873	12.1690	14.4586
.15	7.0406	8.3380	9.9109	11.7681	13.9145
.14	6.9624	8.1696	9.6358	11.3685	13.3715
.13	6.8855	8.0026	9.3623	10.9702	12.8298
.12	6.8098	7.8372	9.0903	10.5735	12.2895
.11	6.7353	7.6734	8.8200	10.1784	11.7507
.10	6.6621	7.5113	8.5515	9.7851	11.2138
.09	6.5902	7.3510	8.2850	9.3939	10.6787
.08	6.5196	7.1926	8.0206	9.0048	10.1458
.07	6.4502	7.0361	7.7584	8.6180	9.6154
.06	6.3821	6.8815	7.4987	8.2339	9.0877
.05	6.3153	6.7291	7.2415	7.8527	8.5630
.04	6.2498	6.5787	6.9870	7.4746	8.0417
.03	6.1855	6.4306	6.7354	7.1000	7.5243
.02	6.1224	6.2847	6.4870	6.7391	7.0112
.01	6.0606	6.1412	6.2418	6.3623	6.5029
.00	6.0000	6.0000	6.0000	6.0000	6.0000

Table 5e. Eigenvalues of the separation constant $\{A_0(n,n-4,c) - c\}$

c \ n	4	5	6	7	8
0.00	.0000	2.0000	6.0000	12.0000	20.0000
.20	.4718	2.2954	6.2156	12.1698	20.1401
.40	.8400	2.5480	6.4080	12.3251	20.2703
.60	1.1313	2.7660	6.5806	12.4676	20.3915
.80	1.3664	2.9558	6.7362	12.5989	20.5048
1.00	1.5602	3.1225	6.8774	12.7202	20.6107
1.20	1.7230	3.2702	7.0060	12.8326	20.7102
1.40	1.8623	3.4021	7.1237	12.9372	20.8036
1.60	1.9831	3.5207	7.2318	13.0347	20.8917
1.80	2.0893	3.6279	7.3315	13.1258	20.9748
2.00	2.1835	3.7255	7.4238	13.2111	21.0533
2.20	2.2679	3.8147	7.5096	13.2913	21.1277
2.40	2.3441	3.8967	7.5894	13.3667	21.1982
2.60	2.4133	3.9722	7.6640	13.4379	21.2652
2.80	2.4765	4.0422	7.7339	13.5051	21.3290
3.00	2.5346	4.1072	7.7995	13.5687	21.3897
3.20	2.5881	4.1678	7.8611	13.6290	21.4476
3.40	2.6376	4.2244	7.9193	13.6862	21.5029
3.60	2.6836	4.2774	7.9742	13.7406	21.5557
3.80	2.7265	4.3272	8.0262	13.7925	21.6063
4.00	2.7666	4.3741	8.0754	13.8419	21.6547
4.20	2.8041	4.4183	8.1222	13.8890	21.7012
4.40	2.8394	4.4601	8.1666	13.9341	21.7458
4.60	2.8725	4.4996	8.2090	13.9772	21.7886
4.80	2.9038	4.5371	8.2493	14.0185	21.8298
5.00	2.9334	4.5727	8.2878	14.0581	21.8694

$\{A_0(n,n-4,c) - c\}/c$

(1/C)\n	4	5	6	7	8
.20	.5867	.9145	1.6576	2.8116	4.3739
.19	.5643	.8772	1.5838	2.6805	4.1647
.18	.5414	.8393	1.5095	2.5488	3.9550
.17	.5179	.8008	1.4346	2.4165	3.7447
.16	.4939	.7617	1.3590	2.2837	3.5339
.15	.4693	.7218	1.2828	2.1501	3.3225
.14	.4440	.6813	1.2057	2.0158	3.1103
.13	.4181	.6400	1.1279	1.8807	2.8974
.12	.3915	.5973	1.0493	1.7448	2.6836
.11	.3642	.5548	.9697	1.6079	2.4690
.10	.3361	.5103	.8891	1.4700	2.2533
.09	.3072	.4653	.8073	1.3310	2.0364
.08	.2774	.4133	.7244	1.1907	1.8183
.07	.2467	.3727	.6402	1.0490	1.5988
.06	.2150	.3243	.5546	.9057	1.3776
.05	.1822	.2745	.4673	.7607	1.1546
.04	.1484	.2232	.3783	.6137	.9295
.03	.1133	.1702	.2873	.4645	.7019
.02	.0770	.1155	.1941	.3128	.4715
.01	.0392	.0569	.0985	.1581	.2377
.00	.0000	.0000	.0000	.0000	.0000

Table 5f. Eigenvalues of the separation constant $\{A_2(n,n-4,c) - c\}$

c \ n	4	5	6	7	8
0.00	6.0000	12.0000	20.0000	30.0000	42.0000
.20	7.0004	13.0267	21.0118	30.9923	42.9742
.40	8.0773	14.0738	22.0294	31.9853	43.9471
.60	9.2035	15.1335	23.0495	32.9775	44.9181
.80	10.3579	16.1995	24.0699	33.9679	45.8866
1.00	11.5253	17.2672	25.0886	34.9556	46.8522
1.20	12.6948	18.3329	26.1042	35.9400	47.8146
1.40	13.8589	19.3930	27.1154	36.9205	48.7735
1.60	15.0123	20.4483	28.1215	37.8966	49.7287
1.80	16.1515	21.4947	29.1218	38.8682	50.6801
2.00	17.2741	22.5322	30.1159	39.8350	51.6276
2.20	18.3786	23.5600	31.1035	40.7968	52.5711
2.40	19.4643	24.5790	32.0845	41.7537	53.5107
2.60	20.5310	25.5859	33.0588	42.7056	54.4462
2.80	21.5789	26.5837	34.0264	43.6525	55.3779
3.00	22.6086	27.5716	34.9874	44.5945	56.3056
3.20	23.6209	28.5493	35.9419	45.5317	57.2295
3.40	24.6167	29.5199	36.8900	46.4641	58.1496
3.60	25.5971	30.4789	37.8319	47.3918	59.0661
3.80	26.5631	31.4333	38.7679	48.3151	59.9790
4.00	27.5159	32.3736	39.6982	49.2339	60.8883
4.20	28.4565	33.3091	40.6228	50.1485	61.7943
4.40	29.3858	34.2373	41.5422	51.0591	62.6969
4.60	30.3050	35.1585	42.4565	51.9656	63.5963
4.80	31.2148	36.0733	43.3660	52.8684	64.4927
5.00	32.1162	36.9818	44.2707	53.7675	65.3860

$\{A_2(n,n-4,c) - c\}/c$

(1/C)\n	4	5	6	7	8
.20	6.4232	7.3964	8.8541	10.7535	13.0772
.19	6.3252	7.2520	8.6364	10.4396	12.6458
.18	6.2247	7.1057	8.4171	10.1244	12.2135
.17	6.1216	6.9574	8.1961	9.8079	11.7799
.16	6.0159	6.8063	7.9733	9.4899	11.3452
.15	5.9076	6.6539	7.7486	9.1703	10.9090
.14	5.7967	6.4934	7.5216	8.8487	10.4712
.13	5.6831	6.3403	7.2923	8.5252	10.0316
.12	5.5669	6.1733	7.0605	8.1993	9.5900
.11	5.4481	6.0155	6.8256	7.8709	9.1461
.10	5.3268	5.8485	6.5881	7.5397	8.6936
.09	5.2030	5.6734	6.3472	7.2053	8.2502
.08	5.0768	5.5050	6.1026	6.8675	7.7975
.07	4.9485	5.3293	5.8546	6.5259	7.3411
.06	4.8180	5.1482	5.6026	6.1802	6.8805
.05	4.6855	4.9647	5.3463	5.8299	6.4152
.04	4.5513	4.7730	5.0859	5.4748	5.9446
.03	4.4154	4.5879	4.8210	5.1144	5.4683
.02	4.2781	4.3948	4.5517	4.7486	4.9857
.01	4.1396	4.1937	4.2780	4.3772	4.4964
.00	4.0000	4.0000	4.0000	4.0000	4.0000

Table 5g. Eigenvalues of the separation constant $\{A_4(n,n-4,c) - c\}$

c \ n	4	5	6	7	8
0.00	20.0000	30.0000	42.0000	56.0000	72.0000
.20	20.9278	31.07[illegible]0	43.1725	57.2379	73.2857
.40	21.8827	32.1732	44.3626	58.4896	74.5826
.60	22.8652	33.3035	45.5699	59.7549	75.8904
.80	23.8756	34.4447	46.7938	61.0332	77.2087
1.00	24.9145	35.6103	48.0340	62.3241	78.5370
1.20	25.9822	36.7960	49.2898	63.6273	79.8752
1.40	27.0788	38.0040	50.5609	64.9423	81.2229
1.60	28.2046	39.2310	51.8467	66.2687	82.5796
1.80	29.3592	40.4773	53.1467	67.6061	83.9451
2.00	30.5424	41.7423	54.4603	68.9539	85.3191
2.20	31.7535	43.0253	55.7869	70.3119	86.7012
2.40	32.9916	44.3254	57.1260	71.6795	88.0911
2.60	34.2557	45.6413	58.4772	73.0565	89.4885
2.80	35.5446	46.9741	59.8397	74.4424	90.8932
3.00	36.8569	48.3212	61.2132	75.8368	92.3047
3.20	38.1910	49.6823	62.5970	77.2394	93.7229
3.40	39.5457	51.0567	63.9907	78.6497	95.1475
3.60	40.9193	52.4437	65.3939	80.0675	96.5782
3.80	42.3104	53.8424	66.8059	81.4925	98.0148
4.00	43.7175	55.2523	68.2264	82.9242	99.4570
4.20	45.1394	56.6726	69.6550	84.3624	100.9045
4.40	46.5748	58.1026	71.0911	85.8068	102.3573
4.60	48.0224	59.5410	72.5345	87.2572	103.8150
4.80	49.4613	60.9806	73.9847	88.7131	105.2775
5.00	50.9504	62.4455	75.4415	90.1744	106.7445

$\{A_4(n,n-4,c) - c\}/c$

(1/C)\n	4	5	6	7	8
.20	10.1901	12.4831	15.0883	18.0349	21.3489
.19	10.0505	12.2308	14.6998	17.5100	20.6495
.18	9.9140	11.9740	14.3134	16.9668	19.9516
.17	9.7805	11.7218	13.9293	16.4355	19.2553
.16	9.6502	11.4725	13.5477	15.9064	18.5609
.15	9.5231	11.2243	13.1687	15.3796	17.8686
.14	9.3993	10.9803	12.7926	14.8555	17.1785
.13	9.2788	10.7330	12.4197	14.3341	16.4910
.12	9.1616	10.5023	12.0503	13.8159	15.8064
.11	9.0477	10.2607	11.6845	13.3012	15.1250
.10	8.9372	10.0435	11.3226	12.7903	14.4471
.09	8.8299	9.8177	10.9655	12.2837	13.7734
.08	8.7256	9.5951	10.6128	11.7818	13.1042
.07	8.6249	9.3730	10.2652	11.2851	12.4402
.06	8.5270	9.1675	9.9229	10.7941	11.7820
.05	8.4322	8.9600	9.5864	10.3094	11.1303
.04	8.3403	8.7530	9.2559	9.8315	10.4859
.03	8.2513	8.5610	8.9317	9.3610	9.8498
.02	8.1649	8.3607	8.6142	8.8986	9.2228
.01	8.0812	8.1304	8.3036	8.4447	8.6058
.00	8.0000	8.0000	8.0000	8.0000	8.0000

Table 5h. Eigenvalues of the separation constant $A_1(n,n-5,c) - c$

c \ n	5	6	7	8	9
0.00	2.0000	6.0000	12.0000	20.0000	30.0000
.20	3.3197	7.0587	12.9150	20.8233	30.7595
.40	4.5566	8.0640	13.7949	21.6217	31.5004
.60	5.7096	9.0217	14.6421	22.3967	32.2239
.80	6.7819	9.9322	15.4587	23.1499	32.9309
1.00	7.7781	10.8002	16.2471	23.8828	33.6226
1.20	8.7057	11.6294	17.0095	24.5969	34.2999
1.40	9.5725	12.4232	17.7479	25.2934	34.9636
1.60	10.3865	13.1853	18.4644	25.9736	35.6148
1.80	11.1552	13.9186	19.1607	26.6386	36.2541
2.00	11.8849	14.6263	19.8364	27.2896	36.8824
2.20	12.5814	15.3107	20.4991	27.9275	37.5002
2.40	13.2494	15.9743	21.1442	28.5532	38.1083
2.60	13.8928	16.6193	21.7750	29.1677	38.7072
2.80	14.5149	17.2473	22.3926	29.7716	39.2975
3.00	15.1185	17.8601	22.9980	30.3657	39.8798
3.20	15.7060	18.4592	23.5923	30.9506	40.4544
3.40	16.2791	19.0457	24.1762	31.5270	41.0218
3.60	16.8397	19.6208	24.7506	32.0953	41.5826
3.80	17.3890	20.1856	25.3161	32.6562	42.1369
4.00	17.9283	20.7400	25.8734	33.2101	42.6853
4.20	18.4585	21.2875	26.4231	33.7574	43.2279
4.40	18.9806	21.8262	26.9657	34.2986	43.7652
4.60	19.4953	22.3575	27.5017	34.8340	44.2975
4.80	20.0033	22.8821	28.0316	35.3639	44.8249
5.00	20.5052	23.4004	28.5557	35.8886	45.3478

$\{A_1(n,n-5,c) - c\}/c$

(1/C)\n	5	6	7	8	9
.20	4.1010	4.6801	5.7111	7.1777	9.0696
.19	4.0198	4.5740	5.5551	6.9486	8.7456
.18	3.9368	4.4650	5.3972	6.7179	8.4201
.17	3.8519	4.3560	5.2374	6.4854	8.0930
.16	3.7650	4.2433	5.0755	6.2510	7.7642
.15	3.6760	4.1294	4.9114	6.0145	7.4334
.14	3.5848	4.0125	4.7449	5.7757	7.1006
.13	3.4913	3.8931	4.5758	5.5344	6.7653
.12	3.3954	3.7709	4.4039	5.2904	6.4275
.11	3.2969	3.6458	4.2290	5.0435	6.0869
.10	3.1958	3.5175	4.0508	4.7932	5.7430
.09	3.0919	3.3850	3.8690	4.5393	5.3955
.08	2.9850	3.2507	3.6832	4.2813	5.0440
.07	2.8749	3.1115	3.4932	4.0189	4.6880
.06	2.7615	2.9693	3.2985	3.7514	4.3268
.05	2.6446	2.8205	3.0986	3.4764	3.9598
.04	2.5239	2.6670	2.8930	3.1990	3.5860
.03	2.3994	2.5000	2.6810	2.9126	3.2046
.02	2.2707	2.3463	2.4621	2.6180	2.8141
.01	2.1376	2.1765	2.2354	2.3143	2.4132
.00	2.0000	2.0000	2.0000	2.0000	2.0000

Table 5i. Eigenvalues of the separation constant $A_3(n,n-5,c) - c$

c \ n	5	6	7	8	9
0.00	12.0000	20.0000	30.0000	42.0000	56.0000
.20	13.1566	21.2574	31.2909	43.3020	57.3043
.40	14.3709	22.5449	32.5980	44.6133	58.6140
.60	15.6435	23.8596	33.9194	45.9324	59.9282
.80	16.9718	25.1985	35.2529	47.2581	61.2460
1.00	18.3503	26.5579	36.5966	48.5892	62.5668
1.20	19.7717	27.9344	37.9485	49.9246	63.8899
1.40	21.2275	29.3245	39.3070	51.2633	65.2145
1.60	22.7097	30.7250	40.6703	52.6044	66.5403
1.80	24.2106	32.1330	42.0371	53.9471	67.8666
2.00	25.7234	33.5460	43.4060	55.2905	69.1931
2.20	27.2423	34.9615	44.7759	56.6342	70.5193
2.40	28.7623	36.3777	46.1458	57.9774	71.8449
2.60	30.2796	37.7928	47.5148	59.3197	73.1695
2.80	31.7908	39.2054	48.8821	60.6607	74.4930
3.00	33.2933	40.6144	50.2473	62.0000	75.8150
3.20	34.7852	42.0183	51.6097	63.3373	77.1354
3.40	35.2650	43.4170	52.9689	64.6723	78.4540
3.60	37.7316	44.8112	54.3246	66.0049	79.7707
3.80	39.1845	46.1982	55.6766	67.3348	81.0853
4.00	40.6232	47.5786	57.0245	68.6620	82.3979
4.20	42.0477	48.9523	58.3684	69.9862	83.7082
4.40	43.4582	50.3191	59.7081	71.3075	85.0162
4.60	44.8550	51.6791	61.0434	72.6258	86.3220
4.80	46.2386	53.0324	62.3745	73.9411	87.6254
5.00	47.6096	54.3789	63.7014	75.2533	88.9265

$\{A_3(n,n-5,c) - c\}/c$

(1/c)\n	5	6	7	8	9
.20	9.5219	10.8758	12.7403	15.0507	17.7853
.19	9.3851	10.6667	12.4337	14.6253	17.2206
.18	9.2442	10.4554	12.1257	14.1988	16.6551
.17	9.0990	10.2415	11.8159	13.7711	16.0886
.16	8.9493	10.0247	11.5041	13.3419	15.5210
.15	8.7947	9.8047	11.1901	12.9110	14.9520
.14	8.6353	9.5813	10.8735	12.4781	14.3814
.13	8.4709	9.3541	10.5541	12.0430	13.8090
.12	8.3016	9.1228	10.2314	11.6052	13.2344
.11	8.1275	8.8871	9.9051	11.1645	12.6574
.10	7.9488	8.6469	9.5748	10.7204	12.0774
.09	7.7658	8.4017	9.2401	10.2724	11.4941
.08	7.5788	8.1513	8.9007	9.8201	10.9068
.07	7.3883	7.8970	8.5562	9.3629	10.3151
.06	7.1948	7.6373	8.2065	8.9305	9.7182
.05	6.9987	7.3732	7.8513	8.4322	9.1155
.04	6.8007	7.1047	7.4906	7.9579	8.5064
.03	6.6012	6.8325	7.1246	7.4773	7.8905
.02	6.4009	6.5572	6.7538	6.9905	7.2673
.01	6.2003	6.2795	6.3786	6.4978	6.6370
.00	6.0000	6.0000	6.0000	6.0000	6.0000

Table 5j. Eigenvalues of the separation constant $A_5(n,n-5,c) - c$

c \ n	5	6	7	8	9
0.00	30.0000	42.0000	56.0000	72.0000	90.0000
.20	31.1237	43.2833	57.3941	73.4746	91.5361
.40	32.2725	44.5902	58.8071	74.9651	93.0856
.60	33.4466	45.9187	60.2386	76.4709	94.6490
.80	34.6462	47.2693	61.6884	77.9920	96.2231
1.00	35.8715	48.6413	63.1563	79.5280	97.8106
1.20	37.1227	50.0353	64.6420	81.0785	99.4103
1.40	38.4000	51.4523	66.1451	82.6433	101.0218
1.60	39.7038	52.8897	67.6653	84.2220	102.6449
1.80	41.0342	54.3483	69.2023	85.8143	104.2792
2.00	42.3917	55.8273	70.7556	87.4199	105.9245
2.20	43.7763	57.3278	72.3250	89.0383	107.5805
2.40	45.1883	58.8480	73.9100	90.6694	109.2468
2.60	46.6277	60.3880	75.5102	92.3126	110.9233
2.80	48.0943	61.9473	77.1253	93.9677	112.6095
3.00	49.5882	63.5255	78.7547	95.6343	114.3053
3.20	51.1088	65.1220	80.3980	97.3121	116.0102
3.40	52.6559	66.7354	82.0549	99.0007	117.7242
3.60	54.2287	68.3680	83.7248	100.6998	119.4468
3.80	55.8265	70.0162	85.4074	102.4090	121.1779
4.00	57.4485	71.6805	87.1021	104.1279	122.9169
4.20	59.0938	73.3602	88.8085	105.8563	124.6639
4.40	60.7612	75.0546	90.5262	107.5939	126.4185
4.60	62.4497	76.7633	92.2548	109.3402	128.1805
4.80	64.1581	78.4855	93.9939	111.0951	129.9496
5.00	65.8853	80.2227	95.7429	112.8581	131.7256

$\{A_5(n,n-5,c) - c\}/c$

(1/c)\n	5	6	7	8	9
.20	13.1771	16.0441	19.1486	22.5716	26.3451
.19	12.9551	15.6793	18.6312	21.8861	25.4738
.18	12.7390	15.3136	18.1171	21.2033	24.6048
.17	12.5291	14.9625	17.6067	20.5235	23.7384
.16	12.3258	14.6115	17.1004	19.8471	22.8748
.15	12.1293	14.2650	16.5985	19.1745	22.0146
.14	11.9399	13.9262	16.1016	18.5062	21.1581
.13	11.7578	13.5923	15.6101	17.8426	20.3057
.12	11.5830	13.2663	15.1247	17.1843	19.4580
.11	11.4155	12.9471	14.6459	16.5320	18.6158
.10	11.2553	12.6356	14.1744	15.8864	17.7796
.09	11.1023	12.3323	13.7109	15.2483	16.9504
.08	10.9562	12.0375	13.2561	14.6186	16.1291
.07	10.8168	11.7514	12.8105	13.9982	15.3169
.06	10.6837	11.4743	12.3750	13.3881	14.5150
.05	10.5567	11.2063	11.9502	12.7894	13.7247
.04	10.4354	10.9474	11.5365	12.2031	12.9475
.03	10.3194	10.6975	11.1344	11.6302	12.1850
.02	10.2084	10.4565	10.7442	11.0715	11.4386
.01	10.1021	10.2241	10.3660	10.5280	10.7098
.00	10.0000	10.0000	10.0000	10.0000	10.0000

Table 6a. Eigenvalues of the separation constant $A_0(n,n-2,p) + p$

p \ n	2	3	4	5	6
.00	0.0000	2.0000	6.0000	12.0000	20.0000
.20	-.2914	1.8293	5.8739	11.9375	19.9248
.40	-.6355	1.6340	5.7471	11.8071	19.8443
.60	-1.0355	1.4137	5.6000	11.6981	19.7581
.60	-1.4914	1.1621	5.4368	11.5795	19.6655
1.00	-2.0000	.8763	5.2554	11.4502	19.5660
1.20	-2.5559	.5553	5.0538	11.3089	19.4589
1.40	-3.1526	.1950	4.8297	11.1544	19.3434
1.60	-3.7833	-.2050	4.5808	10.9853	19.2186
1.80	-4.4419	-.6447	4.3049	10.8000	19.0838
2.00	-5.1231	-1.1231	4.0000	10.5969	18.9377
2.20	-5.8227	-1.6373	3.6644	10.3742	18.7795
2.40	-6.5371	-2.1863	3.2969	10.1304	18.6079
2.60	-7.2636	-2.7651	2.8969	9.8637	18.4217
2.80	-8.0000	-3.3707	2.4644	9.5725	18.2195
3.00	-8.7446	-4.0000	2.0000	9.2554	18.0000
3.20	-9.4959	-4.6493	1.5049	8.9114	17.7619
3.40	-10.2529	-5.3172	.9808	8.5396	17.5037
3.60	-11.0147	-6.0000	.4297	8.1396	17.2243
3.80	-11.7805	-6.6959	-.1462	7.7114	16.9223
4.00	-12.5498	-7.4031	-.7446	7.2554	16.5969
4.20	-13.3221	-8.1201	-1.3632	6.7725	16.2470
4.40	-14.0970	-8.8456	-2.0000	6.2637	15.8723
4.60	-14.8741	-9.5783	-2.6529	5.7304	15.4723
4.80	-15.6532	-10.3175	-3.3201	5.1742	15.0470
5.00	-15.4340	-11.0623	-4.0000	4.5969	14.5969

$\{A_0(n,n-2,p) + p\}/p$

(1/p)\n	2	3	4	5	6
.20	-3.2868	-2.2125	-.8000	.9194	2.9194
.19	-3.3181	-2.2834	-.9332	.7235	2.6538
.18	-3.3499	-2.3573	-1.0698	.5213	2.3798
.17	-3.3821	-2.4473	-1.2039	.3127	2.0966
.16	-3.4148	-2.5293	-1.3533	.0976	1.8035
.15	-3.4480	-2.6121	-1.5000	-.1238	1.5000
.14	-3.4817	-2.6963	-1.6498	-.3514	1.1861
.13	-3.5158	-2.7819	-1.8027	-.5849	.8617
.12	-3.5504	-2.8683	-1.9564	-.8240	.5274
.11	-3.5854	-2.9577	-2.1169	-1.0684	.1836
.10	-3.6209	-3.0464	-2.2780	-1.3177	-.1689
.09	-3.6569	-3.1371	-2.4415	-1.5715	-.5291
.08	-3.6933	-3.2233	-2.6073	-1.8294	-.8964
.07	-3.7301	-3.3213	-2.7753	-2.0911	-1.2698
.06	-3.7674	-3.4153	-2.9452	-2.3560	-1.6485
.05	-3.8051	-3.5133	-3.1171	-2.6241	-2.0319
.04	-3.8433	-3.6153	-3.2906	-2.8948	-2.4194
.03	-3.8816	-3.7[illegible]	-3.4658	-3.1680	-2.8104
.02	-3.9208	-3.8[illegible]	-3.6425	-3.4434	-3.2044
.01	-3.9602	-3.9[illegible]	-3.8206	-3.7208	-3.6010
.00	-4.0000	-4.[illegible]	-4.0000	-4.0000	-4.0000

Table 6b. Eigenvalues of the separation constant $A_2(n,n-2,p) + p$

p \ n	2	3	4	5	6
.00	6.0000	12.0000	20.0000	30.0000	42.0000
.20	5.4914	11.3707	19.3201	29.2925	41.2752
.40	5.0355	10.7651	18.6529	28.5929	40.5557
.60	4.6355	10.1863	18.0000	27.9019	39.8419
.80	4.2914	9.6379	17.3632	27.2205	39.1345
1.00	4.0000	9.1231	16.7446	26.5498	38.4340
1.20	3.7559	8.6447	16.1462	25.8911	37.7411
1.40	3.5526	8.2050	15.5703	25.2456	37.0566
1.60	3.3833	7.8050	15.0192	24.6147	36.3814
1.80	3.2419	7.4447	14.4951	24.0000	35.7162
2.00	3.1231	7.1231	14.0000	23.4031	35.0623
2.20	3.0227	6.8373	13.5356	22.8258	34.4205
2.40	2.9371	6.5863	13.1031	22.2696	33.7921
2.60	2.8636	6.3651	12.7031	21.7363	33.1783
2.80	2.8000	6.1707	12.3356	21.2275	32.5805
3.00	2.7446	6.0000	12.0000	20.7446	32.0000
3.20	2.6959	5.8498	11.6951	20.2886	31.4381
3.40	2.6529	5.7172	11.4192	19.8604	30.8963
3.60	2.6147	5.6000	11.1703	19.4604	30.3757
3.80	2.5805	5.4959	10.9462	19.0886	29.8777
4.00	2.5498	5.4031	10.7446	18.7446	29.4031
4.20	2.5221	5.3201	10.5632	18.4275	28.9530
4.40	2.4970	5.2456	10.4000	18.1363	28.5277
4.60	2.4741	5.1733	10.2529	17.8696	28.1277
4.80	2.4532	5.1175	10.1201	17.6258	27.7530
5.00	2.4340	5.0623	10.0000	17.4031	27.4031

$\{A_2(n,n-2,p) + p\}/p$

(1/p)\n	2	3	4	5	6
.20	.4868	1.0125	2.0000	3.4806	5.4806
.19	.4581	.9494	1.8732	3.2565	5.1262
.18	.4299	.8879	1.7498	3.0387	4.7802
.17	.4021	.8273	1.6299	2.8273	4.4434
.16	.3748	.7692	1.5133	2.6224	4.1165
.15	.3480	.7121	1.4000	2.4238	3.8000
.14	.3217	.6563	1.2898	2.2314	3.4939
.13	.2958	.6013	1.1827	2.0449	3.1983
.12	.2704	.5433	1.0704	1.8640	2.9126
.11	.2454	.4970	.9769	1.6884	2.6364
.10	.2209	.4464	.8760	1.5177	2.3689
.09	.1969	.3971	.7815	1.3515	2.1091
.08	.1733	.3483	.6873	1.1894	1.8564
.07	.1501	.3018	.5953	1.0311	1.6098
.06	.1274	.2558	.5052	.8760	1.3685
.05	.1051	.2108	.4171	.7241	1.1319
.04	.0833	.1668	.3306	.5748	.8994
.03	.0618	.1273	.2458	.4280	.6704
.02	.0406	.0815	.1625	.2334	.4444
.01	.0202	.0404	.0806	.1408	.2210
.00	.0000	.0000	.0000	.0000	.0000

Table 6c. Eigenvalues of the separation constant $A_1(n,n-3,p) + p$

p \ n	3	4	5	6	7
.00	2.0000	6.0000	12.0000	20.0000	30.0000
.20	1.1049	5.2459	11.3253	19.3760	29.4109
.40	.1808	4.4689	10.6342	18.7398	28.8127
.60	-.7703	3.6633	9.9259	18.0910	28.2048
.80	-1.7462	2.8459	9.2000	17.4289	27.5869
1.00	-2.7446	2.0000	8.4560	16.7530	26.9584
1.20	-3.7632	1.1313	7.6935	16.0629	26.3189
1.40	-4.8000	.2418	6.9124	15.3581	25.6680
1.60	-5.8529	-.6691	6.1124	14.6381	25.0052
1.80	-6.9201	-1.6000	5.2935	13.9025	24.3300
2.00	-8.0000	-2.5438	4.4560	13.1511	23.6422
2.20	-9.0911	-3.5175	3.6000	12.3837	22.9412
2.40	-10.1921	-4.5019	2.7259	11.6000	22.2268
2.60	-11.3019	-5.5019	1.8342	10.8000	21.4986
2.80	-12.4195	-6.5162	.9253	9.9837	20.7564
3.00	-13.5440	-7.5440	.0000	9.1511	20.0000
3.20	-14.6747	-8.5841	-.9411	8.3025	19.2291
3.40	-15.8109	-9.6355	-1.8973	7.4381	18.4437
3.60	-16.9520	-10.6973	-2.8678	6.5581	17.6437
3.80	-18.0975	-11.7687	-3.8519	5.6629	16.8291
4.00	-19.2470	-12.8489	-4.8489	4.7530	16.0000
4.20	-20.4000	-13.9371	-5.8578	3.8289	15.1564
4.40	-21.5563	-15.0326	-6.8781	2.8910	14.2986
4.60	-22.7155	-16.1350	-7.9090	1.9398	13.4268
4.80	-23.8773	-17.2436	-8.9439	.9760	12.5412
5.00	-25.0416	-18.3578	-10.0000	.0000	11.6422

$\{A_1(n,n-3,p) + p\}/p$

(1/p)\n	3	4	5	6	7
.20	-5.0083	-3.6716	-2.0000	.0000	2.3284
.19	-5.0496	-3.7691	-2.1650	-.2473	1.9835
.18	-5.0916	-3.8663	-2.3329	-.4986	1.6339
.17	-5.1343	-3.9663	-2.5039	-.7541	1.2792
.16	-5.1776	-4.0631	-2.6780	-1.0142	.9188
.15	-5.2221	-4.1713	-2.8556	-1.2794	.5520
.14	-5.2672	-4.2777	-3.0368	-1.5499	.1782
.13	-5.3132	-4.3856	-3.2216	-1.8260	-.2033
.12	-5.3600	-4.4956	-3.4104	-2.1082	-.5932
.11	-5.4077	-4.6079	-3.6031	-2.3967	-.9919
.10	-5.4564	-4.7224	-3.8000	-2.6916	-1.4000
.09	-5.5060	-4.8392	-4.0011	-2.9933	-1.8179
.08	-5.5566	-4.9584	-4.2064	-3.3017	-2.2457
.07	-5.6082	-5.0800	-4.4160	-3.6169	-2.6835
.06	-5.6609	-5.2040	-4.6299	-3.9398	-3.1313
.05	-5.7146	-5.3305	-4.8430	-4.2673	-3.5885
.04	-5.7694	-5.4595	-5.0704	-4.6022	-4.0549
.03	-5.8253	-5.5909	-5.2969	-4.9432	-4.5299
.02	-5.8624	-5.7243	-5.5274	-5.2901	-5.0129
.01	-5.9406	-5.8612	-5.7618	-5.6425	-5.5031
.00	-6.0000	-6.0000	-6.0000	-6.0000	-6.0000

Table 6d. Eigenvalues of the separation constant $A_3(n,n-3,p) + p$

p \ n	3	4	5	6	7
.00	12.0000	20.0000	30.0000	42.0000	56.0000
.20	11.2951	19.1541	29.0747	41.0240	54.9891
.40	10.6192	18.3311	28.1658	40.0602	53.9873
.60	9.9703	17.5311	27.2741	39.1090	52.9952
.80	9.3462	16.7541	26.4000	38.1711	52.0131
1.00	8.7446	16.0000	25.5440	37.2470	51.0416
1.20	8.1632	15.2682	24.7065	36.3371	50.0811
1.40	7.6000	14.5582	23.8876	35.4419	49.1320
1.60	7.0529	13.8691	23.0876	34.5619	48.1948
1.80	6.5201	13.2000	22.3065	33.6975	47.2700
2.00	6.0000	12.5438	21.5440	32.8489	46.3578
2.20	5.4911	11.9175	20.8000	32.0163	45.4588
2.40	4.9921	11.3019	20.0741	31.2000	44.5732
2.60	4.5019	10.7019	19.3658	30.4000	43.7014
2.80	4.0195	10.1162	18.6747	29.6163	42.8436
3.00	3.5440	9.5440	18.0000	28.8489	42.0000
3.20	3.0747	8.9841	17.3411	28.0975	41.1709
3.40	2.6109	8.4355	16.6973	27.3619	40.3563
3.60	2.1520	7.8973	16.0678	26.6419	39.5563
3.80	1.6975	7.3687	15.4519	25.9371	38.7709
4.00	1.2470	6.8489	14.8489	25.2470	38.0000
4.20	.8000	6.3371	14.2578	24.5711	37.2436
4.40	.3563	5.8326	13.6781	23.9090	36.5014
4.60	-.0845	5.3350	13.1090	23.2602	35.7732
4.80	-.5227	4.8436	12.5439	22.6240	35.0588
5.00	-.9584	4.3578	12.0000	22.0000	34.3578

$\{A_3(n,n-3,p) + p\}/p$

(1/p)\n	3	4	5	6	7
.20	-.1917	.8716	2.4000	4.4000	6.8716
.19	-.2904	.7081	2.1450	4.0273	6.3565
.18	-.3884	.5453	1.8929	3.6586	5.8461
.17	-.4857	.3863	1.6439	3.2941	5.3408
.16	-.5622	.2231	1.3980	2.9342	4.8412
.15	-.6779	.0713	1.1556	2.5794	4.3480
.14	-.7728	-.0823	.9168	2.2299	3.8618
.13	-.8668	-.2344	.6816	1.8860	3.3833
.12	-.9600	-.3844	.4504	1.5482	2.9132
.11	-1.0523	-.5321	.2231	1.2167	2.4519
.10	-1.1436	-.6775	-.0000	.8916	2.0000
.09	-1.2340	-.8213	-.2169	.5733	1.5579
.08	-1.3234	-.9616	-.4336	.2617	1.1257
.07	-1.4118	-1.1000	-.6440	-.0431	.7035
.06	-1.4991	-1.2333	-.8501	-.3412	.2913
.05	-1.5654	-1.3605	-1.0520	-.6327	-.1115
.04	-1.6706	-1.5005	-1.2496	-.9178	-.5051
.03	-1.7547	-1.6231	-1.4431	-1.1968	-.8901
.02	-1.8376	-1.7552	-1.6326	-1.4699	-1.2671
.01	-1.9194	-1.8783	-1.8182	-1.7375	-1.6369
.00	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000

Table 6e. Eigenvalues of the separation constant $A_0(n,n-4,p) + p$

p \ n	4	5	6	7	8
0.00	.0000	2.0000	6.0000	12.0000	20.0000
.20	-.5039	1.6518	5.7569	11.8135	19.8488
.40	-1.3607	1.2330	5.4815	11.6080	19.6851
.60	-2.2726	.7483	5.1676	11.3805	19.5074
.80	-3.3221	.1633	4.8087	11.1277	19.3139
1.00	-4.4821	-.5031	4.3970	10.8458	19.1026
1.20	-5.7254	-1.2905	3.9248	10.5303	18.8710
1.40	-7.0308	-2.1726	3.3845	10.1763	18.6165
1.60	-8.3826	-3.1476	2.7696	9.7785	18.3360
1.80	-9.7695	-4.2045	2.0758	9.3312	18.0261
2.00	-11.1838	-5.3311	1.3019	8.8289	17.6831
2.20	-12.6199	-6.5160	.4493	8.2668	17.3028
2.40	-14.0737	-7.7493	-.4774	7.6406	16.8810
2.60	-15.5421	-9.0227	-1.4720	6.9481	16.4135
2.80	-17.0229	-10.3296	-2.5275	6.1883	15.8960
3.00	-18.5140	-11.6646	-3.6365	5.3625	15.3252
3.20	-20.0143	-13.0236	-4.7922	4.4732	14.6980
3.40	-21.5224	-14.4031	-5.9883	3.5246	14.0129
3.60	-23.0374	-15.8004	-7.2196	2.5213	13.2691
3.80	-24.5585	-17.2132	-8.4815	1.4684	12.4674
4.00	-26.0850	-18.6396	-9.7700	.3709	11.6095
4.20	-27.6164	-20.0781	-11.0820	-.7662	10.6981
4.40	-29.1523	-21.5275	-12.4147	-1.9388	9.7367
4.60	-30.6920	-22.9865	-13.7657	-3.1428	8.7289
4.80	-32.2354	-24.4544	-15.1332	-4.3748	7.6786
5.00	-33.7821	-25.9301	-16.5153	-5.6319	6.5896

$\{A_0(n,n-4,p) + p\}/p$

(1/p)\n	4	5	6	7	8
.20	-6.7564	-5.1860	-3.3031	-1.1264	1.3179
.19	-6.8061	-5.2977	-3.4873	-1.3908	.9697
.18	-6.8568	-5.4113	-3.6758	-1.6623	.6103
.17	-6.9085	-5.5282	-3.8686	-1.9410	.2396
.16	-6.9612	-5.6472	-4.0660	-2.2271	-.1427
.15	-7.0151	-5.7533	-4.2681	-2.5207	-.5365
.14	-7.0701	-5.8932	-4.4750	-2.8220	-.9422
.13	-7.1264	-6.0274	-4.6869	-3.1312	-1.3597
.12	-7.1839	-6.1506	-4.9041	-3.4487	-1.7893
.11	-7.2427	-6.2840	-5.1268	-3.7746	-2.2314
.10	-7.3030	-6.4205	-5.3552	-4.1094	-2.6862
.09	-7.3647	-6.5605	-5.5835	-4.4533	-3.1542
.08	-7.4279	-6.7042	-5.8299	-4.8066	-3.6357
.07	-7.4928	-6.8515	-6.0768	-5.1697	-4.1312
.06	-7.5594	-7.0027	-6.3303	-5.5429	-4.6411
.05	-7.6278	-7.1570	-6.5907	-5.9264	-5.1654
.04	-7.6981	-7.3174	-6.8581	-6.3204	-5.7043
.03	-7.7703	-7.4812	-7.1327	-6.7248	-6.2577
.02	-7.8447	-7.6435	-7.4145	-7.1397	-6.8251
.01	-7.9212	-7.8224	-7.7036	-7.5649	-7.4061
.00	-8.0000	-8.0000	-8.0000	-8.0000	-8.0000

Table 6f. Eigenvalues of the separation constant $A_2(n,n-4,p) + p$

p \ n	4	5	6	7	8
0.00	6.0000	12.0000	20.0000	30.0000	42.0000
.20	5.1048	11.0036	18.9976	29.0100	41.0254
.40	4.3357	10.0483	18.0034	28.0244	40.0513
.60	3.6949	9.1487	17.0409	27.0457	39.0790
.80	3.1647	8.3143	16.0984	26.0769	38.1099
1.00	2.7173	7.5563	15.1894	25.1214	37.1457
1.20	2.3250	6.8772	14.3213	24.1333	36.1885
1.40	1.9653	6.2748	13.5014	23.2672	35.2406
1.60	1.6214	5.7410	12.7359	22.3782	34.3047
1.80	1.2809	5.2641	12.0286	21.5216	33.3839
2.00	.9343	4.8314	11.3806	20.7024	32.4818
2.20	.5749	4.4307	10.7839	19.9254	31.6020
2.40	.1971	4.0512	10.2516	19.1943	30.7485
2.60	-.2031	3.6837	9.7589	18.5111	29.9252
2.80	-.6284	3.3205	9.3043	17.8763	29.1360
3.00	-1.0808	2.9552	8.8797	17.2884	28.3841
3.20	-1.5613	2.5825	8.4776	16.7442	27.6720
3.40	-2.0699	2.1979	8.0910	16.2393	27.0011
3.60	-2.6059	1.7973	7.7137	15.7685	26.3717
3.80	-3.1683	1.3792	7.3404	15.3261	25.7826
4.00	-3.7553	.9399	6.9660	14.9064	25.2318
4.20	-4.3650	.4781	6.5866	14.5041	24.7162
4.40	-4.9956	-.0070	6.1984	14.1140	24.2318
4.60	-5.6449	-.5160	5.7983	13.7314	23.7744
4.80	-5.3109	-1.0488	5.3836	13.3523	23.3398
5.00	-6.9919	-1.6048	4.9521	12.9726	22.9234

$\{A_2(n,n-2,p) + p\}/p$

(1/p)\n	4	5	6	7	8
.20	-1.3984	-.3210	.9904	2.5945	4.5847
.19	-1.5025	-.4504	.8276	2.3687	4.2553
.18	-1.6106	-.5873	.6574	2.1399	3.9291
.17	-1.7228	-.7323	.4781	1.9062	3.6045
.16	-1.8388	-.8855	.2880	1.6648	3.2790
.15	-1.9584	-1.0469	.0856	1.4127	2.9495
.14	-2.0814	-1.2162	-.1305	1.1464	2.6118
.13	-2.2076	-1.3931	-.3606	.8623	2.2606
.12	-2.3366	-1.5767	-.6044	.5578	1.8894
.11	-2.4683	-1.7663	-.8610	.2316	1.4921
.10	-2.6022	-1.9610	-1.1287	-.1154	1.0644
.09	-2.7381	-2.1598	-1.4054	-.4805	.6060
.08	-2.8756	-2.3618	-1.6889	-.8598	.1210
.07	-3.0144	-2.5661	-1.9773	-1.2492	-.3837
.06	-3.1544	-2.7719	-2.2685	-1.6445	-.9007
.05	-3.2950	-2.9784	-2.5609	-2.0426	-1.4237
.04	-3.4361	-3.1849	-2.8531	-2.4407	-1.9477
.03	-3.5775	-3.3909	-3.1440	-2.8367	-2.4692
.02	-3.7187	-3.5957	-3.4325	-3.2293	-2.9859
.01	-3.8596	-3.7989	-3.7161	-3.6172	-3.4964
.00	-4.0000	-4.0000	-4.0000	-4.0000	-4.0000

Table 6g. Eigenvalues of the separation constant $A_4(n,n-4,p) + p$

p \ n	4	5	6	7	8
0.00	20.0000	30.0000	42.0000	56.0000	72.0000
.20	19.0991	28.9447	40.8454	54.7764	70.7258
.40	18.2250	27.9121	39.7091	53.5676	69.4636
.60	17.3777	26.9024	38.5915	52.3738	68.2136
.80	16.5574	25.9159	37.4929	51.1954	66.9762
1.00	15.7648	24.9528	36.4136	50.0329	65.7517
1.20	15.0005	24.0133	35.3539	48.8864	64.5405
1.40	14.2655	23.0978	34.3141	47.7564	63.3429
1.60	13.5611	22.2066	33.2946	46.6433	62.1593
1.80	12.8886	21.3404	32.2956	45.5472	60.9899
2.00	12.2495	20.4997	31.3175	44.4686	59.8351
2.20	11.6451	19.6853	30.3608	43.4078	58.6952
2.40	11.0766	18.8981	29.4258	42.3651	57.5705
2.60	10.5452	18.1390	28.5131	41.3408	56.4613
2.80	10.0513	17.4090	27.6232	40.3354	55.3679
3.00	9.5949	16.7094	26.7568	39.3492	54.2907
3.20	9.1756	16.0411	25.9146	38.3826	53.2300
3.40	8.7922	15.4052	25.0973	37.4361	52.1860
3.60	8.4433	14.8026	24.3059	36.5102	51.1592
3.80	8.1267	14.2339	23.5411	35.6055	50.1500
4.00	7.8403	13.6997	22.8040	34.7226	49.1587
4.20	7.5815	13.2000	22.0954	33.8621	48.1857
4.40	7.3478	12.7345	21.4163	33.0248	47.2315
4.60	7.1369	12.3025	20.7674	32.2113	46.2967
4.80	6.9463	11.9031	20.1496	31.4226	45.3816
5.00	6.7739	11.5340	19.5632	30.6593	44.4870

$\{A_4(n,n-4,p) + p\}/p$

(1/p) \ n	4	5	6	7	8
.20	1.3548	2.3070	3.9126	6.1319	8.8974
.19	1.2486	2.1081	3.5797	5.6421	8.2350
.18	1.1474	1.9191	3.2583	5.1623	7.5805
.17	1.0513	1.7405	2.9505	4.6948	6.9360
.16	.9600	1.5727	2.6580	4.2422	6.3037
.15	.8735	1.4157	2.3825	3.8080	5.6871
.14	.7915	1.2695	2.1255	3.3956	5.0903
.13	.7140	1.1335	1.8875	3.0089	4.5191
.12	.6405	1.0073	1.6686	2.6509	3.9799
.11	.5710	.8903	1.4678	2.3230	3.4793
.10	.5052	.7815	1.2839	2.0248	3.0218
.09	.4427	.6804	1.1148	1.7538	2.6082
.08	.3835	.5850	.9589	1.5064	2.2347
.07	.3273	.4976	.8141	1.2789	1.8949
.06	.2738	.4146	.6788	1.0675	1.5816
.05	.2228	.3363	.5516	.8690	1.2891
.04	.1742	.2623	.4312	.6911	1.0120
.03	.1278	.1921	.3167	.5016	.7469
.02	.0834	.1252	.2070	.3290	.4910
.01	.0408	.0612	.1017	.1621	.2426
.00	.0000	.0000	.0000	.0000	.0000

Table 6h. Eigenvalues of the separation constant $A_1(n,n-5,p) + p$

p \ n	5	6	7	8	9
0.00	2.0000	6.0000	12.0000	20.0000	30.0000
.20	.6015	4.8857	11.0476	19.4500	29.2217
.40	-.8693	3.7173	10.0559	18.5713	28.4207
.60	-2.4047	2.4915	9.0229	17.3636	27.5976
.80	-3.9964	1.2101	7.9471	16.4238	26.7512
1.00	-5.6365	-.1254	6.8275	15.4509	25.9800
1.20	-7.3179	-1.5126	5.6635	14.4437	24.9825
1.40	-9.0346	-2.9435	4.4549	13.4038	24.0578
1.60	-10.7811	-4.4235	3.2021	12.3214	23.1043
1.80	-12.5531	-5.9522	1.9059	11.2047	22.1211
2.00	-14.3469	-7.5123	.5677	10.0504	21.1071
2.20	-16.1596	-9.1081	-.8109	8.8583	20.0616
2.40	-17.9885	-10.7345	-2.2281	7.6287	18.9839
2.60	-19.8317	-12.3891	-3.6816	6.3621	17.8733
2.80	-21.6872	-14.0691	-5.1697	5.0392	16.7237
3.00	-23.5538	-15.7710	-6.6836	3.7210	15.5529
3.20	-25.4300	-17.4955	-8.2394	2.3488	14.3431
3.40	-27.3149	-19.2376	-9.8168	.9439	13.1035
3.60	-29.2075	-20.9967	-11.4196	-.4922	11.8256
3.80	-31.1071	-22.7711	-13.0465	-1.9590	10.5190
4.00	-33.0129	-24.5594	-14.6951	-3.4519	9.1817
4.20	-34.9245	-26.3603	-16.3640	-4.9724	7.8146
4.40	-36.8411	-28.1723	-18.0514	-6.5178	6.4186
4.60	-38.7625	-29.9950	-19.7561	-8.0367	4.3950
4.80	-40.6883	-31.8233	-21.4768	-9.0777	3.5449
5.00	-42.6179	-33.6707	-23.2122	-11.2392	2.0694

$\{A_1(n,n-5,p) + p\}/p$

(1/p) \ n	5	6	7	8	9
.20	-8.5236	-6.7341	-4.6424	-2.2578	.4139
.19	-8.5809	-6.8613	-4.8401	-2.5234	.0174
.18	-8.6393	-6.9891	-5.0582	-2.8554	-.3873
.17	-8.6991	-7.1209	-5.2732	-3.1643	-.8010
.16	-8.7601	-7.2554	-5.4931	-3.4906	-1.2243
.15	-8.8226	-7.3933	-5.7134	-3.8046	-1.6580
.14	-8.8865	-7.5344	-5.9494	-4.1370	-2.1031
.13	-8.9519	-7.6731	-6.1363	-4.4783	-2.5602
.12	-9.0190	-7.8275	-6.4295	-4.8290	-3.0303
.11	-9.0878	-7.9733	-6.6794	-5.1896	-3.5142
.10	-9.1585	-8.1365	-6.9364	-5.5608	-4.0128
.09	-9.2312	-8.2975	-7.2039	-5.9433	-4.5271
.08	-9.3059	-8.4633	-7.4733	-6.3377	-5.0580
.07	-9.3829	-8.6343	-7.7543	-6.7447	-5.6064
.06	-9.4623	-8.8113	-8.0442	-7.1649	-6.1732
.05	-9.5443	-8.9920	-8.3435	-7.5992	-6.7594
.04	-9.6290	-9.1799	-8.6529	-8.0461	-7.3658
.03	-9.7167	-9.3743	-8.9728	-8.5123	-7.9929
.02	-9.8076	-9.5755	-9.3037	-8.9922	-8.6410
.01	-9.9020	-9.7833	-9.6460	-9.4880	-9.3101
.00	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Table 6i. Eigenvalues of the separation constant $A_3(n,n-5,p) + p$

p \ n	5	6	7	8	9
0.00	12.0000	20.0000	30.0000	42.0000	56.0000
.20	10.8971	18.7743	28.7274	40.7086	54.7019
.40	9.8415	17.5332	27.4749	39.4291	53.4111
.60	8.8254	16.4252	26.2442	38.1630	52.1285
.80	7.8408	15.3033	25.0365	36.9117	50.8552
1.00	6.8797	14.2067	23.8528	35.6764	49.5921
1.20	5.9351	13.1413	22.6935	34.4582	48.3405
1.40	5.0011	12.1023	21.5585	33.2581	47.1011
1.60	4.0725	11.0863	20.4473	32.0768	45.8751
1.80	3.1452	10.0873	19.3590	30.9148	44.6632
2.00	2.2159	9.1047	18.2921	29.7723	43.4663
2.20	1.2820	8.1330	17.2448	28.6492	42.2849
2.40	.3414	7.1697	16.2151	27.5451	41.1195
2.60	-.6074	6.2116	15.2008	26.4594	39.9705
2.80	-1.5655	5.2564	14.1997	25.3910	38.8379
3.00	-2.5335	4.3015	13.2095	24.3389	37.7216
3.20	-3.5121	3.3451	12.2280	23.3016	36.6214
3.40	-4.5013	2.3855	11.2529	22.2777	35.5367
3.60	-5.5013	1.4213	10.2824	21.2657	34.4669
3.80	-6.5120	.4513	9.3144	20.2638	33.4111
4.00	-7.5330	-.5253	8.3475	19.2704	32.3684
4.20	-8.5641	-1.5092	7.3799	18.2839	31.3377
4.40	-9.6050	-2.5013	6.4105	17.3026	30.3178
4.60	-10.6551	-3.5010	5.4379	16.3252	29.3074
4.80	-11.7141	-4.5095	4.4613	15.3502	28.3052
5.00	-12.7814	-5.5264	3.4797	14.3761	27.3101

$\{A_3(n,n-5,p) + p\}/p$

(1/p)\n	5	6	7	8	9
.20	-2.5563	-1.1053	.6959	2.8752	5.4620
.19	-2.6976	-1.3067	.4141	2.4879	4.9417
.18	-2.8416	-1.5112	.1300	2.0999	4.4229
.17	-2.9884	-1.7191	-.1572	1.7107	3.9051
.16	-3.1383	-1.9310	-.4480	1.3193	3.3876
.15	-3.2913	-2.1472	-.7433	.9247	2.8693
.14	-3.4478	-2.3692	-1.0441	.5256	2.3489
.13	-3.6078	-2.5945	-1.3511	.1205	1.8247
.12	-3.7714	-2.8252	-1.6654	-.2921	1.2944
.11	-3.9388	-3.0633	-1.9876	-.7141	.7553
.10	-4.1099	-3.3073	-2.3183	-1.1468	.2047
.09	-4.2848	-3.5568	-2.6580	-1.5914	-.3600
.08	-4.4634	-3.8121	-3.0065	-2.0486	-.9410
.07	-4.6455	-4.0730	-3.3634	-2.5182	-1.5389
.06	-4.8311	-4.3333	-3.7281	-2.9991	-2.1530
.05	-5.0199	-4.6094	-4.0992	-3.4896	-2.7810
.04	-5.2116	-4.8835	-4.4754	-3.9873	-3.4194
.03	-5.4058	-5.1655	-4.8552	-4.4897	-4.0641
.02	-5.6023	-5.4395	-5.2369	-4.9941	-4.7113
.01	-5.8005	-5.7133	-5.6190	-5.4982	-5.3575
.00	-6.0000	-6.0000	-6.0000	-6.0000	-6.0000

Table 6j. Eigenvalues of the separation constant $A_5(n,n-5,p) + p$

p \ n	5	6	7	8	9
0.00	30.0000	42.0000	56.0000	72.0000	90.0000
.20	28.9014	40.7335	54.6255	[illegible]	88.4774
.40	27.8279	39.4995	53.2632	[illegible]	86.3686
.60	26.7793	38.2832	51.9329	67.6734	85.4739
.80	25.7556	37.0835	50.6154	66.2645	83.3936
1.00	24.7568	35.9137	49.3137	64.3727	82.5278
1.20	23.7828	34.7717	48.0436	63.4381	81.0769
1.40	22.8334	33.6455	46.7306	62.1411	79.6411
1.60	21.9085	32.5435	45.5505	60.8718	78.2296
1.80	21.0078	31.4644	44.3356	59.4805	76.8157
2.00	20.1310	30.4037	43.1402	58.1773	75.4266
2.20	19.2776	29.3751	41.9662	56.3325	74.0535
2.40	18.4471	28.3640	40.8131	55.6262	72.6966
2.60	17.6391	27.3775	39.6810	54.7785	71.3562
2.80	16.8527	26.4127	38.5700	53.1498	70.0324
3.00	16.0873	25.4734	37.4801	51.9401	68.7254
3.20	15.3421	24.5533	36.4114	50.7496	67.4355
3.40	14.6162	23.6521	35.3639	49.5733	66.1628
3.60	13.9089	22.7754	34.3375	48.4265	64.3075
3.80	13.2191	21.9107	33.3321	47.2343	63.6698
4.00	12.5459	21.0845	32.3477	46.1316	62.4498
4.20	11.8886	20.2695	31.3340	45.1385	61.2477
4.40	11.2461	19.4730	30.4410	44.2152	60.0636
4.60	10.6176	18.6971	29.5182	42.9515	58.8976
4.80	10.0023	17.9384	28.6155	41.3275	57.7499
5.00	9.3994	17.1971	27.7324	40.9131	56.6205

$\{A_5(n,n-5,p) + p\}/p$

(1/p)\n	5	6	7	8	9
.20	1.8799	3.4394	5.5465	8.1826	11.3241
.19	1.6385	3.0873	5.0546	7.5255	10.4809
.18	1.4009	2.7403	4.5633	6.8755	9.6444
.17	1.1675	2.3993	4.0903	6.2336	8.3158
.16	.9384	2.0664	3.6211	5.6013	7.9967
.15	.7139	1.7405	3.1618	4.9799	7.1887
.14	.4943	1.4227	2.7135	4.3714	6.3941
.13	.2797	1.1135	2.2774	3.7778	5.6155
.12	.0704	.8137	1.8548	3.2011	4.8560
.11	-.1334	.5237	1.4469	2.6437	4.1189
.10	-.3316	.2433	1.0547	2.1076	3.4081
.09	-.5240	-.0257	.6788	1.5947	2.7271
.08	-.7107	-.2846	.3198	1.1063	2.0789
.07	-.8915	-.5333	-.0223	.6429	1.4653
.06	-1.0666	-.7739	-.3478	.2041	.8862
.05	-1.2358	-.9986	-.6573	-.2112	.3405
.04	-1.3994	-1.2165	-.9517	-.6045	-.1748
.03	-1.5575	-1.4251	-1.2320	-.9780	-.6630
.02	-1.7101	-1.6249	-1.4994	-1.3337	-1.1277
.01	-1.8576	-1.8163	-1.7550	-1.6737	-1.5724
.00	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000

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Таблицы и графики сфероидальных
функций осциллятора

В работе подытожены - в виде таблиц и графиков - результаты вычислений на ЭВМ угловых и радиальных функций изотропного осциллятора в вытянутых и в сплюснутых сфероидальных координатах. Установлена зависимость сфероидальных констант разделения от дополнительного параметра входящего в определение сфероидальных координат.

Работа выполнена в Лаборатории теоретической физики ОИЯИ.

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Kulchitsky Yu.A. et al. E2-86-432
Tables and Graphs of
Oscillator Spheroidal Functions

In the paper, we summarize, in the form of tables and graphs, the results of calculations at computer and radial functions of an oscillator in prolate and oblate spheroidal coordinates. The dependence is ectablished for separation spheroidal constants on an extra parameter defining the spheroidal coordinates.

The investigation has been performed at the Laboratory of Theoretical Physics, JINR.

Communication of the Joint Institute for Nuclear Research. Dubna 1986