Event Reconstruction
in High-Energy Physics Experiments

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This report reviews methods of pattern recognition and event reconstruction used in modern particle physics experiments. It gives an outline of the event reconstruction chain of a typical large experiment, from the trigger to the physics object reconstruction. The concept is illustrated by two examples, LHC and NICA experiments, where algorithms for hit generation, local reconstruction, and global reconstruction are developed, followed by a discussion of the latest trends in high energy physics. Some emphases of particle identification and reconstruction of physics objects such as electrons, muons, photons, jets, τ leptons, and missing energy will be also underlined in this talk.