Evolutionary Computation in Particle Physics

Biological evolutionary theories have inspired a class of computer algorithms, united under the name of Evolutionary Computation, which are based on simplified computer simulations of the natural evolution. These algorithms are routinely used for solving benchmark problems in computer science as well as complex real-world problems in various fields including some science areas and engineering. In particle physics they have been successfully tested but not extensively used yet. This talk will review the standard versions of the Evolutionary Computation algorithms together with their current applications in particle physics.