ID de Contribution: **38**   Type: **Non spécifié**

Unfolding in High Energy Physics

jeudi 30 novembre 2023 09:00 (35 minutes)

In high-energy physics, unfolding is a critical statistical process for interpreting experimental data that is complicated by the intrinsic ill-posedness of the problem. This complexity arises from the need to provide heuristics for statistical estimates that disentangle true physical phenomena from observational distortions. We present a typical roadmap for why, when, and how unfolding is applied in high energy physics experiments and how the treatment of uncertainties influences considerations such as the choice of algorithm and regularisation. Finally, the concept of unbinned unfolding is presented together with a description of how statistical and systematic uncertainties are typically addressed in unfolding problems, together with a discussion of how statistical modelling and AI can lead to better estimates in the future.

Orateur: CROFT, Vincent Alexander (LIACS)

Classification de Session: Unfolding (de-biasing)