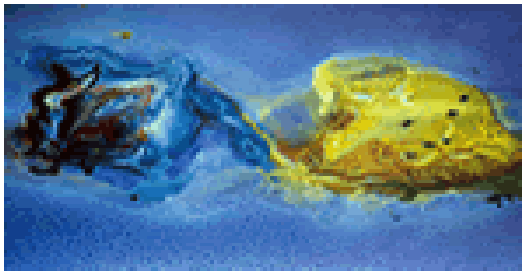

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Bayesian unfolding of charged particle p_{T} spectra with ALICE at the LHC

Wednesday 1 August 2018 14:20 (20 minutes)

The study of the Quark-Gluon Plasma created in ultrarelativistic heavy-ion collisions at the CERN-LHC is complemented by reference measurements in proton-lead (p–Pb) and proton-proton (pp) collisions, where the effects of multiple-parton interactions and hadronization beyond independent string fragmentation can be investigated.
In this talk, we present a Bayesian unfolding procedure to reconstruct the correlation between transverse momentum (p_{T}) spectra of charged particles and the corresponding charged particle multiplicities N_{ch}.
The unfolded spectra are presented in single multiplicity ($\Delta N_{\mathrm{ch}} = 1$) bins and are used to derive moments of the p_{T} distributions.
We illustrate the unfolding procedure of the p_{T} spectra with MC simulations for pp collisions and compare the resulting $\langle p_{\mathrm{T}} \rangle$ of different systems (pp, p–Pb, Pb–Pb) and collision energies.

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