



**Laboratório de Instrumentação e
Física Experimental de Partículas**

LIP Seminar

Thursday, 08 October, 11h30

Simultaneous QCD analysis of collinear distributions

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(LIP)

Traditionally parton distribution functions (PDFs) and fragmentation functions (FFs) have been independently obtained from multiple high-energy scattering experiments by means of a technique known as global analysis. In this talk, I will show the first simultaneous Monte Carlo global analysis of both PDFs and FFs, which includes data on inclusive and semi-inclusive deep-inelastic scattering, Drell-Yan lepton-pair production, and single-inclusive e^+e^- annihilation. Our study reveals significant correlations between the strange quark PDF and the strange-to-kaon fragmentation function needed to simultaneously describe semi-inclusive K production data and inclusive K spectra in e^+e^- annihilation, and suggests a suppression of the strange quark distribution at intermediate x values.

Location: Videoconference - Zoom

<https://indico.lip.pt/event/767/>

Connection details

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