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Type: **Talk**

Missing beauty of proton-proton interactions

Monday 1 August 2022 14:30 (30 minutes)

Multiparton interactions in proton-proton collisions have long been a topic of great interest. A new look at them has begun to emerge from work being done to understand the dynamics of ‘small systems’, a topic that is taking center stage in the physics of relativistic heavy-ion interactions. Numerous studies conducted at the LHC and lower energies reveal that proton-proton collisions at high energy form a system in which final state interactions substantially impact experimentally observable quantities in the soft sector. However, until recently, no evidence was shown that final state interactions could also affect observables produced in the hard scattering processes. Studies performed by the LHC experiments present strong evidence that the final state interactions in proton-proton collisions have a drastic impact on the b-quark bound states production, whose yields may be reduced by more than a factor of two.

Preferred track

Hadronic Issues in Heavy-Flavour Physics

Subfield

HEP experiment

Attending in-person?

Yes

On behalf of collaboration?

no, but closely related to ATLAS and CMS results

Authors: MILOV, Alexander (Weizmann Institute of Science (IL)); AIZENBERG, Iakov (Weizmann Institute of Science (IL)); CITRON, Zvi (Ben-Gurion University of the Negev (IL))

Presenter: CITRON, Zvi (Ben-Gurion University of the Negev (IL))

Session Classification: Collectivity & multiple-scattering 1

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