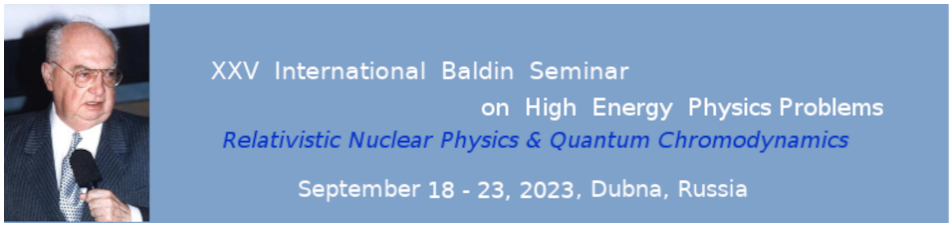

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Azimuthal flow as a probe of color string fusion in p+p collisions

Thursday, 21 September 2023 10:20 (20 minutes)

In this talk, we explore the potential of azimuthal flow as a tool for investigating color string fusion in proton-proton collisions.
Our approach is based on a detailed simulation of the longitudinal and transverse dynamics of strings leading to their subsequent fusion and decay [1,2]. Using model calculations, we demonstrate that the azimuthal anisotropy of the produced hadrons is sensitive to the presence of the color string fusion. Specifically, flow appears due to a momentum loss that particles exhibit once they pass through the strings [3].

Our findings shed new light on the underlying dynamics of color string fusion in high-energy collisions and may have significant implications for our understanding of the strong interaction.

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