

SPCS 2026: 70th Anniversary of the Discovery of Parity Nonconservation and Prospects in Frontier Physics & SPCS 2026 Summer School

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Type: **Parallel Session**

New Perspectives on Precision Nucleon Tomography

Tuesday, 23 June 2026 14:10 (20 minutes)

This talk presents new perspectives on precision nucleon tomography using high-order QCD calculations and jet substructure. We discuss the winner-take-all axis for extending q_T subtraction to jet processes, enabling NNNLO predictions for SIDIS and hadron production in DIS. Novel observables such as one-point energy correlators access the nucleon transversity distribution. Furthermore, we explore quantum decoherence in collider events via effective field theory, linking it to renormalization group evolution. These advances sharpen our understanding of the nucleon tomograph and strong interaction.

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