

# Physics Revealed at Intermediate $p_T$

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## Abstract

The abundant data from RHIC on particles produced at intermediate  $p_T$  are organized in a way that reveals the underlying physics. Recombination is a window through which one can learn about the properties of partons before hadronization. The review scans the terrain from single-particle observables (in  $p_T, \phi, \eta$ ) to multiparticle correlations. Predictions are made, such as breaking of quark-number scaling of  $v_2$  and large  $p/\pi$  ratio at large  $\eta$ . The discovery of ridge on the near side of trigger puts a new light on the characteristics of jet correlations and on the nature of the partons that form the ridge as well as the peak. Since semi-hard scatterings generate ridges in every event near the surface without triggers, they can be the source of elliptic flow without rapid thermalization. Data on the double bumps on the away side are revealing, but insufficient to provide insight into the partonic structure underlying the phenomenon. Questions related to new possibilities at intermediate  $p_T$  at LHC will be raised.