

p-p minimum-bias dijets and nonjet quadrupole in relation to conjectured collectivity (flows) in high-energy nuclear collisions

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Recent observations of ridge-like structure in p-p and p-A angular correlations at the RHIC and LHC are interpreted to imply collective motion in smaller systems. It is argued that if correlations representing flows in A-A collisions appear in smaller systems collectivity must extend to the smaller systems. But the argument could be reversed to conclude that such structures appearing in A-A collisions may not imply flows. In this talk I present spectrum, correlation and fluctuation data from RHIC p-p and Au-Au collisions and p-p, p-Pb and Pb-Pb results from the LHC described accurately by a two-component (soft+dijet) model of hadron production. I also present a significant p-p nonjet (NJ) quadrupole (v_2) component with nch systematics directly related to A-A quadrupole systematics. The combined data suggest that soft, dijet and quadrupole components are independent of one another in all cases, inconsistent with hadron production from a common bulk medium exhibiting collective motion.

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