Between Brascamp–Lieb and Colesanti inequalities

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It is a well-known fact that both the Brunn–Minkowski and the Prékopa–Leinlder inequalities have equivalent local versions. Namely, Minkowski's second inequality and the Brascamp–Lieb inequality. The former can be restated as a Poincaré-type inequality due to Colesanti. In this talk, we present with similar methods a new inequality (again equivalent to the Prékopa–Leinlder inequality) which encoroporates both the Brascamp–Lieb and the Colesanti inequality. Interestingly, a new term appears which encodes the interaction between the two inequalities.