

## Partial correlation analysis in ultra-relativistic nuclear collisions

*Saturday 6 January 2018 16:00 (30 minutes)*

We argue that statistical data analysis of two-particle correlations in ultra-relativistic heavy-ion collisions may be efficiently carried out with the technique of partial covariance. We show that in the superposition approach the presented framework allows one to impose constraints on the number of sources rather than hadrons, which leads to better understanding of the initial-state physics. We demonstrate the method on simulated data for the cases where centrality is determined with a single central control bin, or with two peripheral control bins.

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