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## Fluctuations of conserved charges and freeze-out conditions in heavy ion collisions

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I will review the recent results on fluctuations of conserved charges obtained on the lattice by the Wuppertal-Budapest collaboration. I will then show a comparison between lattice QCD calculations and experimental data from the RHIC beam energy scan, in order to extract the chemical freeze-out parameters (temperature and baryo-chemical potential) of a heavy-ion collision from first principles. Future perspectives for the measurement of strangeness fluctuations will be discussed.

Primary author: Prof. RATTI, Claudia (University of Houston, USA)

**Co-authors:** Dr SZABO, Kalman (University of Wuppertal); SANDOR, Katz (Institute for Theoretical Physics, Eötvös University); STEFAN, Krieg (Forschungszentrum Juelich,); Dr BORSANYI, Szabolcs (University of Wuppertal); FODOR, Zoltan (University of Wuppertal)

Presenter: Prof. RATTI, Claudia (University of Houston, USA)

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