

## Collective flow measurements with HADES in Au+Au collisions at 1.23 AGeV

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Flow coefficients  $v_n$  of the orders  $n = 1 - 6$  are measured with the High-Acceptance DiElectron Spectrometer (HADES) at GSI for protons, deuterons and tritons in Au+Au collisions at  $\sqrt{s_{NN}} = 2.4$  GeV.

HADES provides a large acceptance combined with a high mass-resolution and therefore allows to study dielectron, hadron and light nuclei production in heavy-ion collisions with unprecedented precision. Here we present the multi-differential measurement of flow coefficients over a large region of phase space. We will discuss the scaling properties of the various flow harmonics as a function of transverse momentum  $p_t$ , rapidity and centrality for the three hydrogen isotopes.

Combining the information from the flow coefficients of all orders allows to construct for the first time, at collision energies of a few GeV, a full 3D-picture in momentum space of the angular emission pattern of these particles. It reflects the complicated interplay between the effect of a non-uniform fireball pressure gradient in azimuthal and longitudinal direction on the emission of particles and their subsequent interaction with spectator matter.

The high precision information on higher order flow coefficients puts strong constraints on the determination of the properties of dense baryonic matter, such as its viscosity and equation-of-state (EOS).

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