

Deciphering flow at SIS energies: A look through the keyhole

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The elliptic flow of hadrons at SIS energies is negative due to immense shadowing from the spectators shielding the collision zone. In this talk it is discussed how this measured negative elliptic flow is created through the decoupling dynamics. In contrast to the final state observed flow, the flow of the whole system during the time evolution is found to be positive due to the early pressure gradient exerted by the Equation-of-State. A measurement of the elliptic flow of di-leptons is proposed as a method to determine the early Equation-of-State independently from the elliptic flow of protons and pions which is dominated by the shadowing effect. This poses the unique opportunity for the HADES and CBM collaborations to measure the Equation-of-State directly at 2-3 times nuclear saturation density.

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