Elliptic flow of deuterons in heavy-ion collisions

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Key Insights and Results

- **Hybrid model:**
  - Trento3D - vHLLE - SMASH
  - Initial conditions → QGP evolution → Hadronic phase
- **Tuning of parameters (Trento3D, vHLLE)**
  - Spectra in p_t
  - $v_2(p_t)$ increases with p_t
  - Agreement observed $v_2(p_t)$ for kaons, pions, and protons
  - Centrality effects are captured well by the model
- **Prediction of direct deuterons production**
  - Intermediate p_t discrepancies noted for deuterons
  - First results for coalescence
- **Conclusion and outlook:**
  - The hybrid model demonstrates overall good agreement $v_2(p_t)$ with data, especially for kaons, protons, and pions
  - Outlook:
    - We aim to incorporate explicit coalescence models into the hybrid framework to compare predictions for deuterons