Note on a Scaling Relation for ALICE Charm Baryons

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A possible scaling relation between baryon/meson yields and elliptic flow is:

$$v_2(\Lambda_c) - v_2(D^0) \ \propto \ \log\left(\frac{\Lambda_c}{D^0}\right).$$

How it can be tested: ALICE has measured both Λ_c/D^0 ratios and elliptic flows v_2 for charm hadrons in Pb–Pb collisions. Correlating the baryon/meson yield ratio with the flow difference could confirm or refute the logarithmic scaling.

Why it may be important: Such a relation, if observed, may reveal a hidden universality in hadronization dynamics of charm quarks in the QGP.