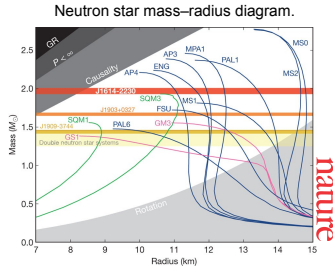


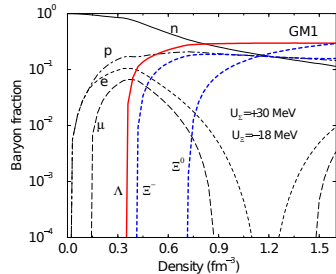
Exploring Λ production in low energy proton-proton reaction at HADES

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PB Demorest *et al.* *Nature* **467**,
1081-1083 (2010) doi:10.1038/nature09466



J. Schaffner and I.N. Mishustin, *Phys.*
Rev. C **53** (1996) 1416

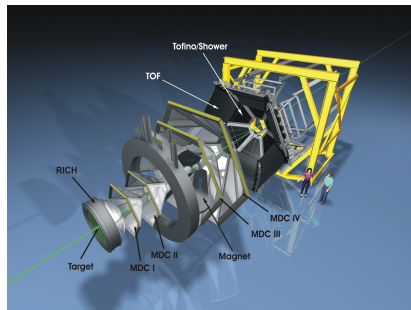
Experimental production of Hyperons

$p + p$ reaction $\equiv \bullet \quad \bullet \equiv$

$p + A$ reaction $\equiv \bullet \quad \text{cluster} \equiv$

HI reaction $\equiv \text{cluster} \quad \text{cluster} \equiv$

HADES spectrometer



- ▶ Production in elementary system as reference for Λ -N interaction in nucleus
- ▶ Pin down contribution of Λ^* , Σ^* , Δ^+ , Δ^{++} and N^* resonances in the energy regime around 3.5 GeV
- ▶ Tuning of GiBUU and UrQMD transport models
- ▶ Complementary to the exclusive analysis of $pK^+\Lambda$ (Partial Wave Analysis)