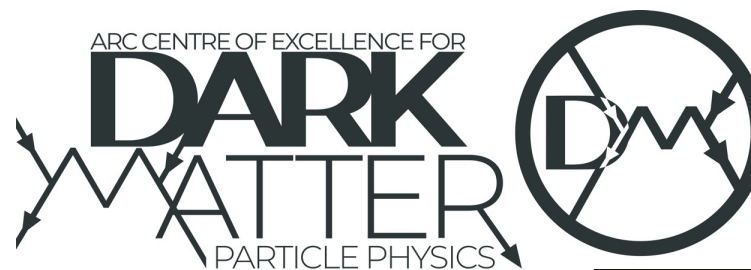


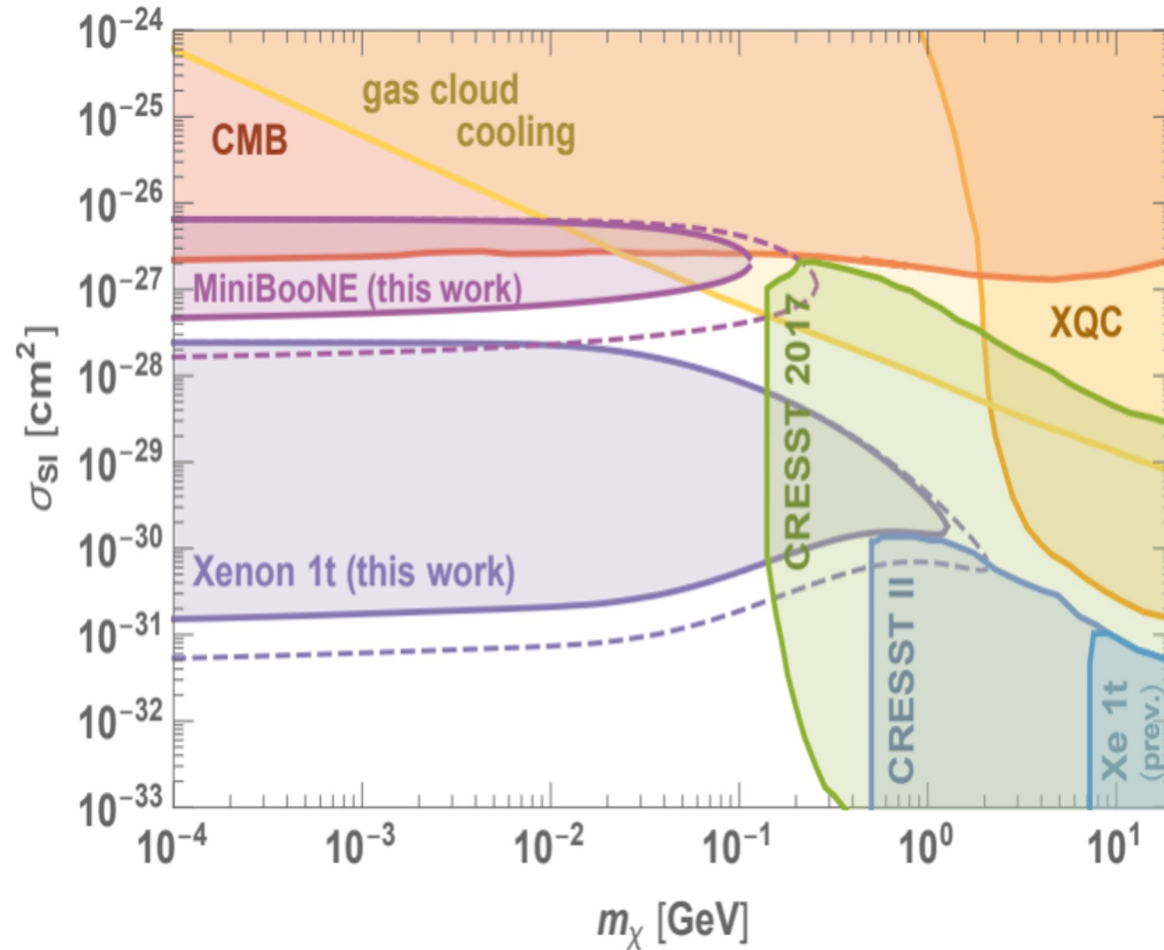
Cosmic ray dark matter confronted by constraints on new light mediators

Iman Shaukat Ali, Nicole Bell, Jayden Newstead

arXiv:2309.11003



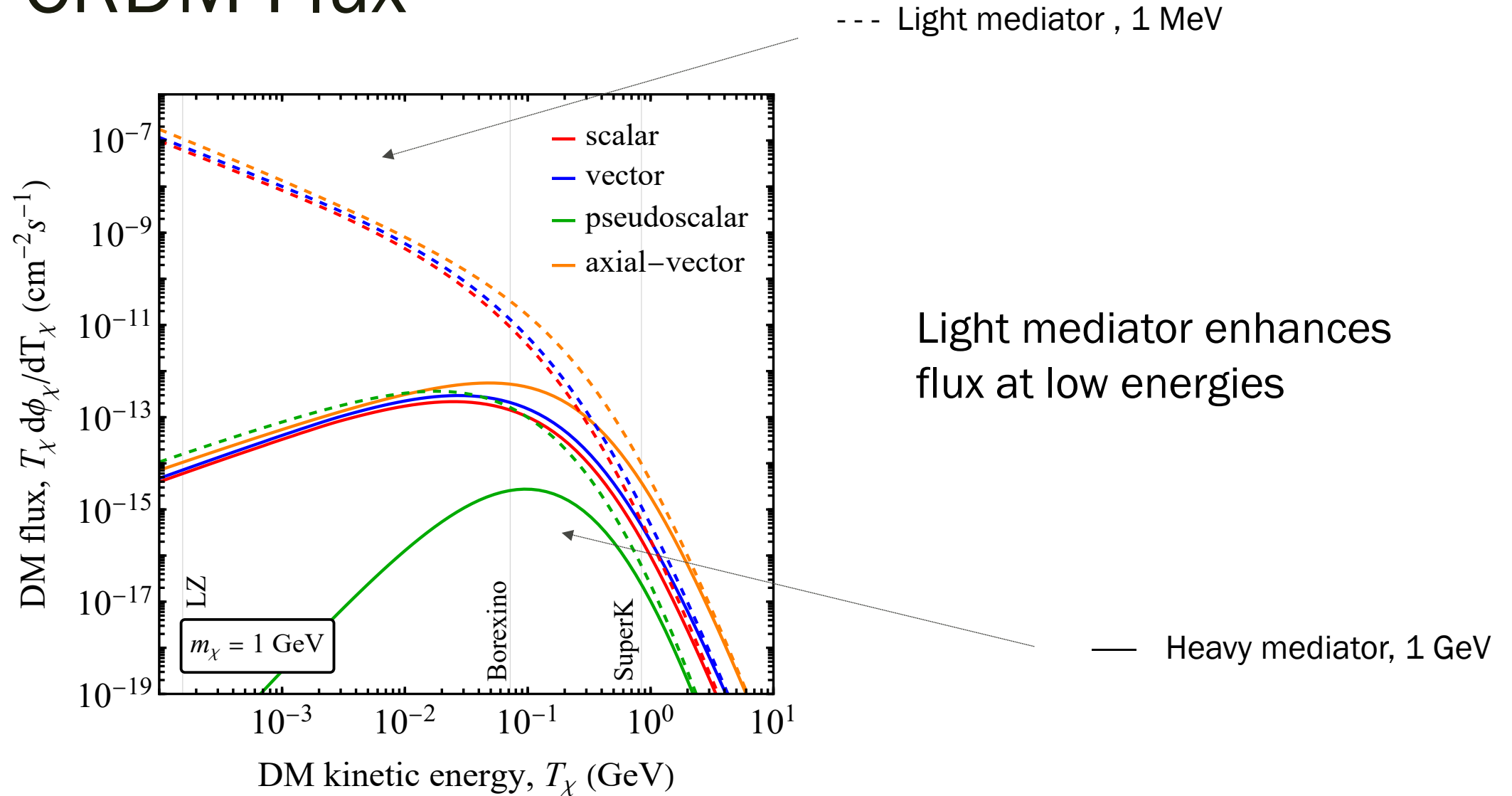
Cosmic ray dark matter (CRDM)



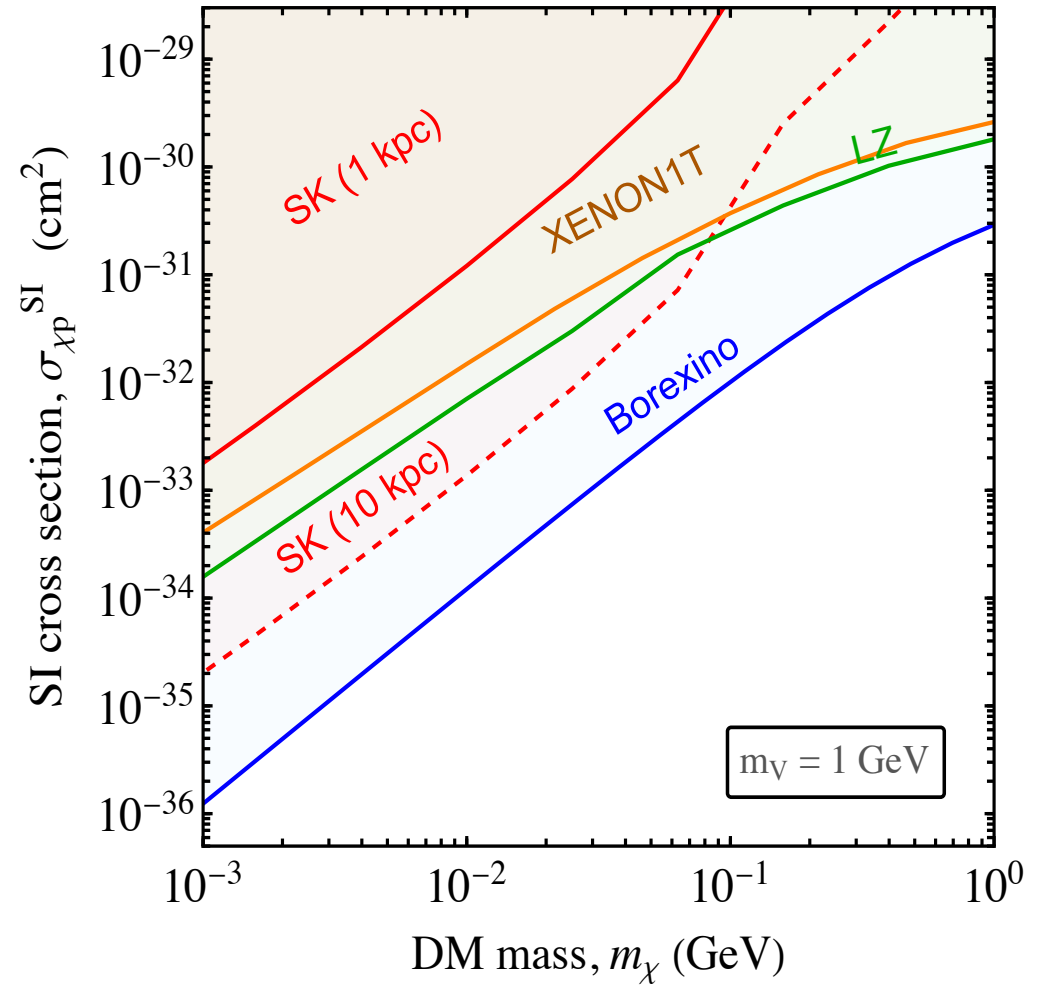
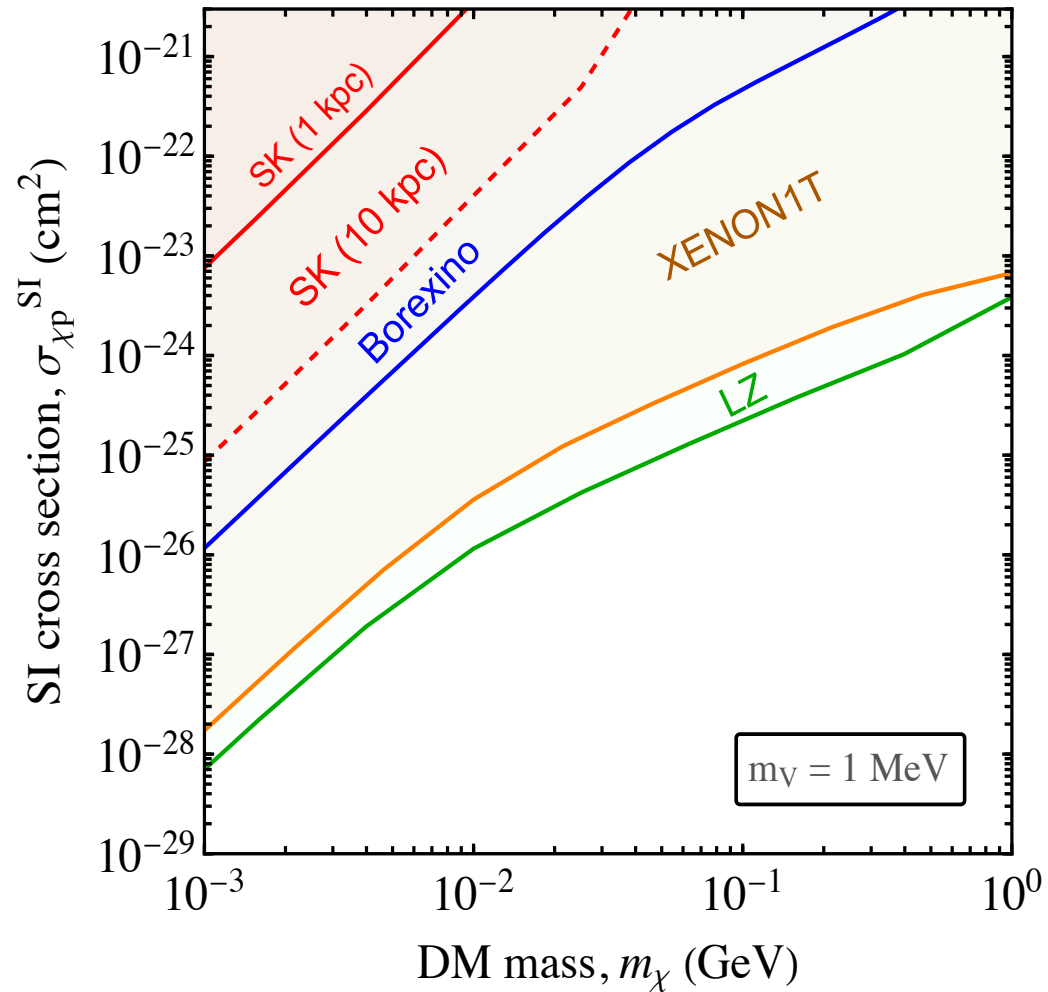
Large cross sections
→ light mediators
→ other constraints

Bringmann and Pospelov
PRL 2019

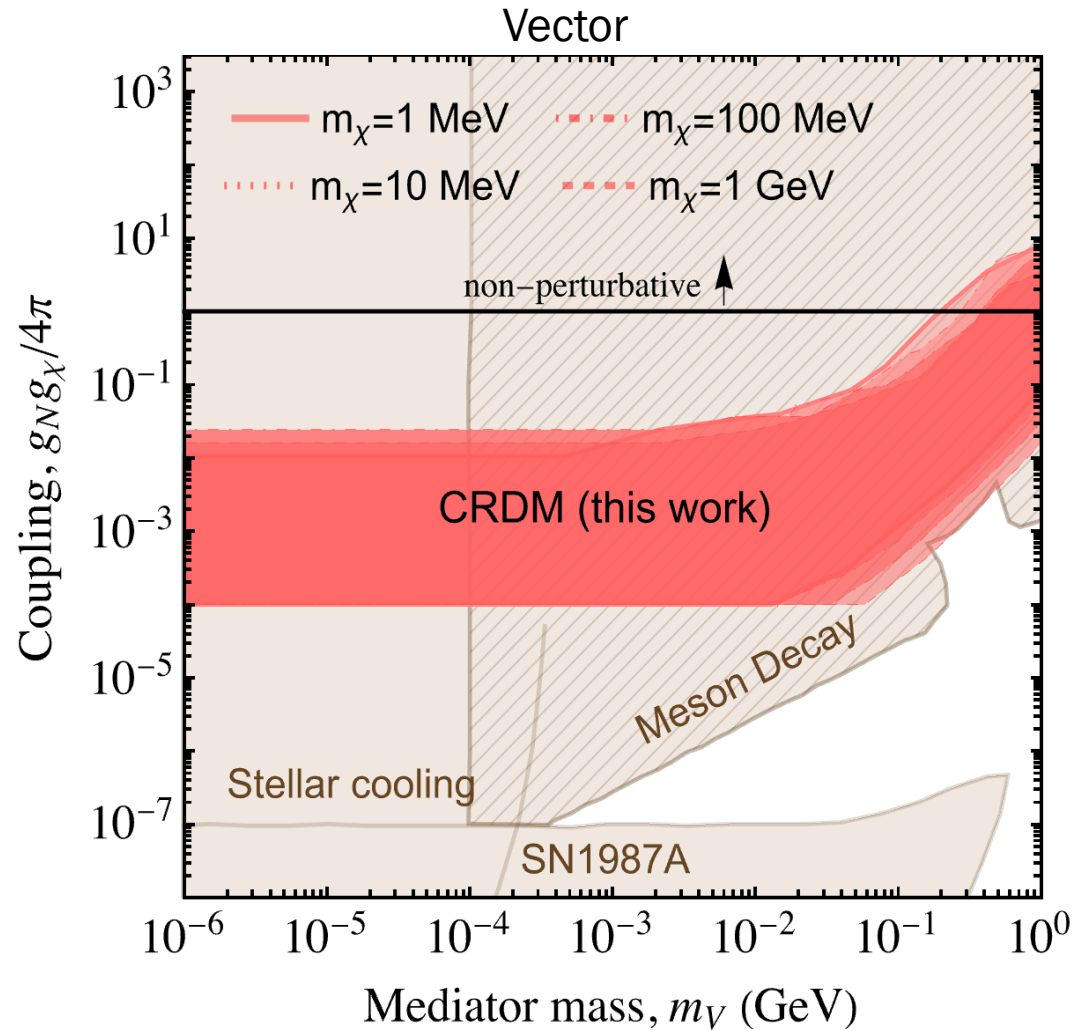
CRDM Flux



Direct detection and neutrino experiments



Results



New light degrees of freedom
strongly constrained

- Beam dump experiments
- Astrophysics

Note: coupling to **hadrons** only

Back up

