

## Some studies on dark matter self-interaction

*Tuesday, 8 July 2025 12:10 (20 minutes)*

In this talk I will briefly introduce some previous researches I have gone through on the topic of self-interacting dark matter (SIDM). For particle aspect, I will review the inclusion of SIDM, the enhancement of potential DM accumulating in the core of stellar objects and its potential observations. For astrophysical aspect, I will introduce the properties of exotic stellar objects constituted by SIDM, and their gravitational signals. Finally, we show the Bondi accretion around a spherical symmetric compact objects (could be a black hole or a dark star) if it is surrounded by SIDM.

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