Contribution ID: **32** Type: **not specified**

Dark matter in main(ish) sequence stars

Monday, June 19, 2023 3:00 PM (45 minutes)

Direct detection experiments around the world are searching for the small dark matter-nucleon interactions that would give us the first clue about its particle physics properties. If such interactions exist, they would also cause dark matter to become trapped inside stars. This can have consequences ranging from unobservable to catastrophic: small effects on neutrino fluxes detected at earth, asteroseismologial changes, the formation of black holes in stellar cores, and even premature thermonuclear detonation. I will provide an overview, and focus in on recent developments in modelling main sequence and post-main sequence evolution of stars affected by dark matter.

Primary author: VINCENT, Aaron (Queen's University)

Presenter: VINCENT, Aaron (Queen's University)