

# JOINT TUFTS/MIT COSMOLOGY SEMINAR

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## *Large Scale Structure from Microphysics*

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In this talk, I will describe my efforts to understand the nature of the mysterious dark matter. I provide an overview of the general problem and then describe my current approach to it, which is to characterize the behavior of a proposed dark matter particle, the axion. I will discuss work that shows that the self-interaction should not be ignored and that the sign of the interaction makes a significant difference in the evolution of the system, both for QCD axions and fuzzy dark matter. I will also briefly describe efforts to use NICER neutron stars as dark matter laboratories.

**Tuesday, October 5, 2021, 2:30 pm**

Zoom link will be distributed to joint cosmology seminar mailing list. If not subscribed see <https://cosmos.phy.tufts.edu/mailman/listinfo/cosmology-seminar>

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