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Exotic Compact Objects in a Dissipative Dark Sector JAE HYEOK CHANG, State Univ of NY - Stony Brook, DANIEL EGANA-UGRINOVIC, Perimeter Institute, ROUVEN ESSIG, State Univ of NY - Stony Brook, CHRIS KOUVARIS, CP3-Origins, University of Southern Denmark — We study the complete history of structure formation of a simple dark sector and show how to form exotic compact objects that vary in size from a few to millions of solar masses. These exotic compact objects may be detected and their properties measured at new high-precision astronomical observatories, giving insight into the particle nature of the dark sector without the requirement of non-gravitational interactions with the visible sector.

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