

Valencia Workshop on the Small-Scale Structure of the Universe and Self-Interacting Dark Matter

Monday 09 June 2025

Simulations (9:30-13:20)

time	[id] title	presenter
9:30	[1] Review talk: The state of the art of self-interacting dark matter simulations	FISCHER, Moritz
10:10	[156] Extracting Dark Matter from Dwarfs	NECIB, Lina
10:30	[3] The rich astrophysical phenomenology of a dissipative dark sector	SHEN, Xuejian
10:50	[4] Endo- and exothermic scattering in Milky Way-mass halos	O'NEIL, Stephanie
11:10	coffee break	
11:50	[54] A detailed characterisation of low-mass dark matter subhalo tidal tracks via numerical simulations	AGUIRRE-SANTAELLA, Alejandra
12:10	[12] Moderated discussion	

Simulations (15:30-18:50)

time	[id] title	presenter
15:30	[24] Stellar halos as a probe of SIDM	FATTAHI, Azadeh
15:50	[25] Exploring solutions to the dwarf galaxy diversity problem	CRUZ, Akaxia
16:10	[26] Universal subhalo distributions across mass, redshift, hierarchy and cosmology	HAN, Jiaxin
16:30	Coffee break	
17:10	[48] MARVEL-ous Dark Matter Constraints using Dwarf Galaxies	MUNSHI, Ferah
17:30	[28] Nature, nurture, and the phase space distribution of the Milky Way's high redshift progenitors today	SREEDHAR, Balu

Monday 16 June 2025

Simulations (9:30-13:30)

time	[id] title	presenter
9:30	[61] Review talk: Cosmological baryonic simulations	WETZEL, Andrew
10:10	[62] Core Dynamics: a proving ground for dark matter self-interactions	VAN DEN BOSCH, Frank
10:30	[63] An SIDM simulation of the merging cluster El Gordo and its tension between the post collision DM density profiles and weak lensing constraints	VALDARNINI, Riccardo
10:50	[83] No particle left behind: towards reliable subhalo tracking for all types of dark matter	DIEMER, Benedikt
11:10	Coffee break	
12:10	[55] Dark Matter Halos in beyond-CDM cosmologies	BANERJEE, Arka
12:30	[65] Auriga SuperDarks: Probing Disc Dynamics in an SIDM Universe	TOMLINSON, Thomas
12:42	[58] Moderated discussion	

Tuesday 17 June 2025

Simulations (15:30-18:10)

time	[id] title	presenter
15:30	[161] Dark Matter Halo Structural Properties: Substructures and Shapes as challenges for CDM	GIOLCOLI, Carlo
15:50	[98] Dynamical Evolutions in Globular Clusters and Dwarf Galaxies: Conduction Fluid Simulations	ZHONG, Yiming
16:10	[152] Formation of the Little Red Dots from the Core-collapse of Self-interacting Dark Matter Halos	JIANG, Fangzhou
16:30	Coffee break	
17:10	[169] Dark matter probes across scales (remote)	GLUSCEVIC, Vera
17:30	[170] The structure of the Galactic Halo as a Dark Matter Laboratory (remote)	GARAVITO CAMARGO, Nicolas

Thursday 19 June 2025

Simulations (15:30-18:40)

time	[id] title	presenter
15:30	[84] The AIDA simulations: galaxy formation in SIDM and WDM	DESPALI, Giulia
15:50	[164] The response of stellar systems to SIDM halo evolution	PETER, Annika
16:10	[112] Stability of Ultra Diffuse Galaxies in CDM (and SIDM)	FRATERNALI, Filippo
16:30	Coffee break	
17:10	[114] Dynamical Halos are Better!	ROZO, Eduardo
17:30	[135] FIRE simulations with SIDM	SANDERSON, Robyn
17:50	[173] Dark Matter Clues from the Faintest Galaxies	NAVARRO, Julio