# Theoretical Modeling of Large-Scale Structure of the Universe

# Tuesday 04 June 2024

# Simulations and theory interplay (09:00-10:34)

time	[id] title	presenter
09:00	[13] Fast numerical methods for cosmological inference from LSS (Hahn)	
	[14] Hermes - Towards an Ultimate High-Performance Algorithm for Cosmic Statistics of Large Data Sets (Feng)	
09:47	[15] CLASS-OneLoop: Presentation and mock data analysis (Linde)	
10:17	[16] CLASS-OneLoop: Numerical Implementation and Outlook (Lesgourgues)	

#### Simulations and theory interplay (11:04-12:38)

time	[id] title	presenter
	[17] Predicting non-linear effects in matter clustering from changes in cosmology and baryons using multi-fidelity simulations (Conley)	
	[18] The "Missing baryons" in the cosmic web—what is it? Where is it? How much? (Ma)	
11:38	[20] Hybrid Lagrangian models (Zennaro)	
12:08	[19] HYMALAIA: A Hybrid Lagrangian Model for Intrinsic Alignments (Maion)	

### Simulations and theory interplay (13:38-14:55)

time	[id] title	presenter
13:38	[21] Extending Hybrid Models of structure formation (Pellejero)	
	[22] Field-level emulation of cosmic structure formation with styled neural networks (Jamieson)	
	[23] Perturbative Forward-Modeling of Large-Scale Structure for Field-Level Analysis and Beyond (Stadler)	

## **Simulations and theory interplay (15:30-16:00)**

time	[id] title	presenter
15:30	[24] How much information is left in galaxy clustering beyond the power spectrum? (Akitsu)	