

2018

Last update: 21 November

Computational Cosmology

Monday 3 December 2018

- 09:00 – 12:00 Arrival, registration
- 12:00 – 13:00 Lunch @Snellius restaurant
- 13:00 – 13:15 Lorentz Center Overview
- 13:15 – 13:30 Welcome
- 13:30 – 13:45 Plenary talk: **John Helly** - Virgo database
- 13:45 – 14:00 Plenary talk: **Matthieu Schaller** - SWIFT
- 14:00 – 14:15 Plenary talk: **Volker Springel** - Gadget-4
- 14:30 – 15:00 Contributed talks
Adrian Jenkins - Linking the cosmICweb and Eagle databases
Josh Borrow - Inter-Lagrangian Baryon Transfer in the SIMBA Simulations
- 15:00 – 15:45 Coffee/tea break
- 15:45 – 17:30 Contributed talks
Alexander Richings - Non-equilibrium chemistry and ISM line diagnostics in FIRE
David Barnes - Quasar feedback with Arepo-RT
Aaron Ludlow - Update on softening in Eagle simulations
Chris Lovell - First Light And Reionisation Era Simulations (FLARES)
Tom Theuns - The IKEA model of galaxy formation
Calvin Sykes - Modelling fluorescent emission from dark haloes
Jaime Salcido - Our simple Universe: A mathematical model of galaxy formation
- 17:30 Wine & cheese party @common room

Tuesday 4 December 2018

- 09:15 – 09:30 Plenary talk: **Joop Schaye** - Eagle
- 09:30 – 09:45 Plenary talk: **Dylan Nelson** - IllustrisTNG
- 09:45 – 10:00 Plenary talk: **Richard Bower** - Eagle-XL
- 10:00 – 10:15 Plenary talk: **Rob Crain** - E-Mosaic

10:15 – 10:30 Plenary talk: **Yannick Bahe** - Hydrangea

10:30 – 11:00 Coffee/tea break

11:00 – 12:30 Brainstorming

12:30 – 14:00 Lunch @Snellius restaurant

14:00 – 15:30 Hack session:
Mathieu Schaller - SWIFT
John Helly - Virgo database
Working groups:
Volker Springel - Very small scales

15.30 – 16.00 Coffee/tea break

16:00 – 17:30 Contributed talks
Annalisa Pillepich - TNG50 galaxies at $z > 0.7$
Freeke van de Voort - The low-redshift circumgalactic medium
with sub-kpc res.
~L* galaxies
Jonathan Davies - The gas fractions of DM haloes hosting simulated
are governed by the feedback history of their BH
Nastasha Wijers - O VII and O VIII absorption systems in EAGLE
Peter Mitchell - Galactic outflows in the Eagle simulations
Juliana Kwan - Precision cosmology with the Mira-Titan Universe

Wednesday 5 December 2018

09:15 – 09:35 Plenary talk: **Joop Schaye, Alejandro Benitez-Llambay, Sylvia Ploeckinger** - Colibre

09:35 – 09:45 Plenary talk: **Adrian Jenkins** - VVV

09:45 – 10:00 Plenary talk: **Rob Grand** - Auriga

10:00 – 10:15 Plenary talk: **Azi Fattahi** - Apostle

10:15 – 10:30 Plenary talk: **Till Sawala** - Sibelius

10:30 – 11:00 Coffee/tea break

11:00 – 12:30 Hack session:
Tiago Costa and Ruediger Pakmor - Radiative transfer
Working groups:
Richard Bower - Eagle-XL

12:30 – 14:00 Lunch @Snellius restaurant

14:00 – 15:30 Hack session:
Stuart McAlpine - Eagle database
 Working groups:
Joop Schaye - Colibre
Simon White and Volker Springel - HyperMillennium

15.30 – 16.00 Coffee/tea break

16:00 – 17:30 Contributed talks
Thorsten Naab - Star cluster and galaxy formation with feedback
 from indiv. stars
Rebekka Bieri - The intertwined life of stellar and quasar feedback
 in Mol. Clouds
Anna Genina - The origin of distinct stellar metallicity popul. in
 APOSTLE dwarfs
Kyle Oman - Non-circular motions and the diversity of dwarf gal.
 rotation curves
Jack Richings - Subhalo destruction in Apostle and Auriga: The
 baryon uncertainty
Azi Fattahi - Missing dwarf galaxies of the Local Group

18:30 Departure to workshop dinner
 19:00 Workshop dinner at restaurant 'Het Prentenkabinet'

Thursday 6 December 2018

09:15 – 09:30 Plenary talk: **Ian McCarthy** - Bahamas
 09:30 – 09:45 Plenary talk: **Volker Springel** - Hyper Millennium
 09:45 – 10:00 Plenary talk: **Christian Arnold** - Modified Gravity
 10:00 – 10.15 Plenary talk: **Simon May** - Fuzzy DM
 10:15 – 10:30 Plenary talk: **Andrew Robertson** - SIDM

10:30 – 11:00 Coffee/tea break

11:00 – 12:30 Contributed talks
Mark Lovell - The signal of decaying DM with hydrodynamical
 simulations
Oliver Newton - Constraints on the mass of the thermal relic WDM
 particle
Camila Correa - The origin of the scatter in the concentration-mass
 relation of
 dark matter haloes in Planck cosmology
Stijn Debackere - Observational constraints on the matter power
 spectrum
Aoife Curran - Investigating the effects of initial conditions on small

- DM halo sims
clustering
- Marcel van Daalen** - Exploring the effects of feedback on matter
- 12:30 – 14:00 Lunch @Snellius restaurant
- 14:00 – 15:30 Hack session:
Dylan Nelson - IllustrisTNG
Alejandro Benitez-Llambay - Visualization
- Working groups:
Till Sawala and Adrian Jenkins - Sibelius
Simon White - VVV
Ian McCarthy - Bahamas
- 15.30 – 16.00 Coffee/tea break
- 16:00 – 17:30 Contributed talks
Francesca Pearce - Hydrostatic mass estimates of massive galaxy clusters
James Trayford - The structural properties of EAGLE galaxies
Alexander Hill - Intrinsic Alignment of Radio Galaxies in EAGLE
Bruno Henriques - The origin of the mass scales for maximal star formation efficiency and quenching: the critical role of Supernovae
Claudia Lagos - Gas accretion vs. quenching and their observational signatures: insights from EAGLE
Francesca Fragkoudi - Bars and disc dynamics in Auriga

Friday 7 December 2018

- 09:15– 10.30 Contributed talks
galaxies
galaxies
Galaxies model
dynamica
- Facundo Gomez** - The origin of lopsided perturbations on late-type galaxies
Tiago Costa - Induced star formation and quiescence in quasar host galaxies
Marius Cautun - The twisted dark halo of the Milky Way
Dimitrios Irodotou - Disk instabilities and galactic sizes in the L-Galaxies model
Tom Callingham - The mass of the Milky Way from satellite dynamica
- 10:30 – 11:00 Coffee/tea break
- 11:00 – 11.45 Contributed talks
Minor dSph
- Rob Grand** - Fountain flows in tumbling discs: a diverse evolution for angular momentum distributions
Bert Vandenbroucke - RHD simulations of outflows in the Ursa Minor dSph

Peter Thomas - Dust modelling in L-Galaxies SAM

11:45 - 12:30 Concluding discussion

12:30 - 14:00 Lunch @Snellius restaurant