

Monday, 23.09.2019

08:30 - 09:00

Registration

09:00 - 09:10

Welcome & Introduction (Pavel Kroupa & Indranil Banik)

Scaling relation - observations (Chair: Stacy McGaugh)

09:10 (25 min) Federico Lelli:

[The empirical laws of galactic rotation](#)

09:50 (25 min) Pengfei Li:

[Fitting the radial acceleration relation to individual SPARC galaxies](#)

10:30 (25 min) Harry Desmond:

[Galaxy velocity & size correlations, the halo Tully-Fisher relation and tests of the External Field Effect](#)

11:10 - 11:40

Coffee break

Scaling relations in Λ CDM simulations (Chair: Donatella Romano)

11:40 (25 min) Aaron A. Dutton:

[Galaxy scale challenges for cold dark matter](#)

12:20 (25 min) Enrico Garaldi:

[The Radial Acceleration Relation of satellite galaxies](#)

13:00 - 14:30

Lunch break

Scaling relations - observations (Chair: Benoit Famaey)

14:30 (25 min) Earl Schulz:
[Scaling relations and the gravitational acceleration at the edge of disk galaxies](#)

[Scaling relations and the gravitational acceleration at the edge of disk galaxies](#)

15:10 (25 min) Tom Richtler:

[Elliptical galaxies and the Baryonic Tully-Fisher Relation \(BTFR\)](#)

15:50 - 16:35

Coffee break

MOND lensing & relativistic theories (Chair: Hongsheng Zhao)

16:35 (25 min) Richard P. Woodard:

[A nonlocal metric realization of MOND](#)

17:15 (40 min) André Maeder:

[The scale invariant theory and MOND: the case of the radial acceleration relation \(RAR\)](#)

18:05-18:30

Discussion (Chair: Oliver Müller)

Tuesday, 24.09.2019

MOND lensing & relativistic theories (Chair: Mordehai Milgrom)

- 09:00 (45 min) Constantinos Skordis: *A relativistic theory of Modified Newtonian Dynamics*
10:00 (20 min) Hongsheng Zhao: *The alternative way to separate the baryon peaks from the lensing peaks of the Bullet Clusters*

10:30 – 11:00 Coffee break

Lensing & dynamics (Chair: Tom Richtler)

- 11:00 (25 min) Kyu-Hyun Chae: [Radial Acceleration Relation in a supercritical acceleration range](#)
11:40 (25 min) Chung-Ming Ko: [Gravitational lensing by spiral and elliptical galaxies in MOND](#)
12:20 (25 min) Yong Tian: [Mass discrepancy-acceleration relation in Einstein rings](#)

13:00 – 14:30 Lunch break

MOND & cosmology (Chair: Benoit Famaey)

- 14:30 (25 min) Mordehai Milgrom: [The \$a_0\$ - \$\Lambda\$ connection](#)
15:10 (25 min) Stacy McGaugh: [Signatures of MOND in cosmology](#)

15:50 – 16:20 Coffee break

Other cosmological models (Chair: André Maeder)

- 16:20 (25 min) Václav Vavryčuk: [CMB as thermal radiation of cosmic dust?](#)
17:00 (25 min) Benoit Famaey: [Superfluid dark matter and related ideas](#)
17:40 (25 min) Mahmood Roshan: [Evolution of spiral galaxies: distinction between modified gravity and particle dark matter](#)

18:20 – 18:40 Discussion (Chair: Emilio Romano-Diaz)

Wednesday, 25.09.2019

Wide binaries (Chair: Indranil Banik)

- 09:00 (25 min) Riccardo Scarpa: [Probing Newtonian Dynamics in the low acceleration regime with wide binary stars](#)
09:40 (25 min) Ricardo Adán Martín Cortés: [Challenging a Newtonian prediction through Gaia wide binaries](#)
10:20 (25 min) Charalambos Pittordis: [Testing modified gravity theories with wide binaries from Gaia DR2](#)

11:00 – 11:25 [Coffee break](#)

Λ CDM simulations of dwarf galaxies (Chair: Akram Zonoozi)

- 11:25 (25 min) François Hammer: *On the absence of dark matter in dwarf galaxies surrounding the Milky Way*
12:05 (25 min) Donatella Romano: [Gas removal from ultrafaint dwarf galaxies – a high-resolution study](#)

12:45 – 14:15 [Lunch break](#)

Simulated galaxies without a dynamical discrepancy (Chair: Xufen Wu)

- 14:15 (25 min) Graeme Candlish: [The external field effect on cluster disk galaxies](#)
14:55 (20 min) Hosein Haghi: [The dynamics of ultra-diffuse galaxies in MOND](#)
15:25 (25 min) Moritz Haslbauer: *Galaxies lacking dark matter in cosmological Λ CDM simulations*

16:05 – 16:30 [Coffee break & group photo](#)

Observations of dwarf galaxies and galaxy clusters (Chair: Oliver Müller)

- 16:30 (25 min) Steffen Mieske: [Gravity tests with dwarf galaxy structure](#)
17:10 (25 min) Michael Hilker: [Kinematic complexity in a rising velocity dispersion profile around the Hydra I cluster central galaxy NGC 3311](#)
17:50 (25 min) Michael Fellhauer: [Sometimes Newton is enough](#)

18:30 – 18:50 [Discussion](#) (Chair: Hosein Haghi)

19:30 [Dinner](#)

Thursday, 26.09.2019

Satellite planes (Chair: François Hammer)

09:00 (25 min) Marcel Pawłowski: [Planes of satellites: observational evidence in light of Gaia DR2, and testing proposed solutions with cosmological simulations](#)

09:40 (25 min) Oliver Müller: *Small-scale cosmology with dwarf galaxies*

10:20 – 10:50 [Coffee break](#)

MOND simulations (Chair: Michal Bilek)

10:50 (25 min) Nils Wittenburg: [The formation of late-type galaxies in MOND](#)

11:30 (25 min) Indranil Banik: [Simulating disk galaxies in MOND: application to M33](#)

12:10 (25 min) Ingo Thies: [On the origin of the Local Group in Modified Newtonian Dynamics](#)

12:50 – 14:30 [Lunch break](#)

Galaxy groups (Chair: Moritz Haslbauer)

14:30 (25 min) Yanbin Yang: [The origin of the Magellanic Clouds and their Stream](#)

15:10 (25 min) Wolfgang Oehm: [Constraints on the existence of dark matter haloes by the M81 group and the Hickson compact groups of galaxies](#)

15:50 – 16:20 [Coffee break](#)

Elliptical galaxies (Chair: Michael Hilker)

16:20 (25 min) Xavier Hernández: *MONDian gravity in astrophysical systems beyond rotation curves: elliptical galaxies, globular clusters and wide binaries*

17:00 (25 min) Michal Bilek: [Gravitational fields of early-type galaxies investigated using the kinematics of globular clusters](#)

17:40 (25 min) Jörg Dabringhausen: [Early-type galaxies without non-baryonic dark matter](#)

18:20 – 18:40 [Discussion](#) (Chair: Indranil Banik)

Friday, 27.09.2019

Star cluster and galaxy simulations (Chair: Graeme Candlish)

- 09:00 (25 min) Xufen Wu: [*The anisotropy of star clusters undergoing gas expulsion*](#)
09:40 (25 min) Guillaume Thomas: *The External Field Effect of the Milky Way and its impact on globular clusters*
10:20 (25 min) Behnam Javanmardi: [*Number of Satellites vs. Bulge Mass in \$\Lambda\$ CDM*](#)

11:00 – 11:30

[Coffee break](#)

11:30 – 13:00

[Debate](#) (Chair: Stacy McGaugh)

13:00 – 14:30

[Lunch break](#)

Other gravity theories (Chair: Pavel Kroupa)

- 14:30 (25 min) Mariano Cadoni: [*Anomalous rotation curves of galaxies as a long-range quantum gravity effect*](#)
15:10 (25 min) Antonaldo Diaferio: [*Dynamics of DiskMass Survey galaxies in Refracted Gravity*](#)
15:50 (25 min) Dragan Slavkov Hajdukovic: *Gravitational polarisation of the quantum vacuum as the cause of phenomena usually attributed to dark matter*

16:30

[End of conference](#)

Posters

Gerhard Hensler: [*Rapid gas accumulation in tidal arms for the formation of tidal dwarf galaxies*](#)