

Galactic Bars 2023 Programme

Review Talks (RT): 30+5mn

Invited Talks (IT): 20+5mn

Contributed Talks (CT): 15+5mn

Monday (3 July)

BARS IN THE LOCAL UNIVERSE AND INTEGRAL FIELD SURVEYS

Chair: Joss Bland-Hawthorn

0930-0945 Welcome: Francesca Fragkoudi, Isabel Perez, Laura Sánchez Menguiano

0945-1020 Peter Erwin: Bars in the local Universe: The current observational perspective (RT)

1020-1045 Amelia Fraser McKelvie: The properties of barred galaxies as revealed by IFS surveys (IT)

1045-1105 Justus Neumann: Azimuthal variations of stellar populations in barred Galaxies (CT)

1105-1145 Break

1145-1205 Miguel Querejeta: Bars in the local universe: The PHANGS perspective (CT)

1205-1225 Dimitri Gadotti: Stellar kinematics and population properties of bar-built nuclear discs in TIMER galaxies (CT)

1225-1245 Jesse van de Sande: GECKOS: Turning galaxy evolution on its side with deep observations of edge-on galaxies with and without bars (CT)

1245-1500 Lunch

BAR FORMATION AND EVOLUTION IN SIMULATIONS

Chair: Panos Patsis

1500-1535 Lia Athanassoula: Bar evolution: What do simulations really tell us? (RT)

1535-1600 Ewa Lokas: Formation and properties of tidally induced bars (IT)

1600-1620 Francesca Fragkoudi: Which galaxies form bars? (CT)

1620-1650 Break

1650-1715 Yetli Rosas-Guevara: The formation and death of stellar bars in cosmological simulations (IT)

1715-1735 Sandeep Kumar Kataria: The role of inner halo angular momentum on bar formation and evolution (CT)

1735-1755 Yirui Zheng: Dynamical properties of bars: Internal versus external mechanisms (CT)

1755-1815 Arturo Núñez-Castiñeyra: How to improve the 'no bars, no cores and only bulges' scenario in cosmological simulations? (CT)

1815-1845 Discussion: Current open questions in the field: What questions should we tackle this week? (*Leads: Dimitri Gadotti, Brooke Simmons, Francesca Fragkoudi, James Binney*)

Tuesday (4 July)

ORBITAL STRUCTURE AND EVOLUTION IN BARRED GALAXIES

Chair: Francesca Fragkoudi

0930-1005 James Binney: Angle-action coordinates and the dynamics of bars (RT)

1005-1030 Mercè Romero-Gómez: The manifold theory and its applications (IT)

1030-1050 Panos Patsis: The orbital content of bars (CT)

1050-1120 Break

1120-1140 Walter Dehnen: Orbits in evolving bars (CT)

BOXY/PEANUT BULGES IN BARRED GALAXIES

1140-1205 Juntai Shen: Formation of boxy/peanut bulges from the theoretical/simulation perspective (IT)

1205-1225 Rachel McClure: Galactic bar resonances and the vertical BPX stellar orbits in an N-body simulation (CT)

1225-1245 Leandro Beraldo e Silva: Orbital support and evolution of flat profiles of bars (shoulders) (CT)

1245-1305 Iulia Simion: A chemo-kinematical study of the Southern Galactic bulge using 2.6 million Red Clump stars from Gaia DR3 and BDBS (CT)

1305-1500 Lunch

1500-1600 Structured discussion on open topics (*Leads: TBD*)

BAR PATTERN SPEEDS IN MODELS AND SIMULATIONS

Chair: Isabel Perez

1600-1620 Ivan Minchev: Bar parameter fluctuations lead to overestimated lengths and 'ultrafast' bars (CT)

1620-1640 Angus Beane: Stellar bars in isolated gas-rich spiral galaxies do not slow down (CT)

1640-1710 Break

1710-1735 Eugene Vasiliev: Dynamical modelling of barred galaxies (IT)

1735-1755 Behzad Tahmasebzadeh: Schwarzschild modelling of the barred S0 Galaxy NGC4371 with the TIMER survey (CT)

1755-1815 Alexander Brook: Assessing the effect of subgrid physics on bar pattern speed (CT)

Wednesday (5 July)

BAR PATTERN SPEEDS AND THE ISM IN BARRED GALAXIES

Chair: Dimitri Gadotti

0930-0955 Virginia Cuomo: Studying bar pattern speeds to reveal secular evolution in disc galaxies (IT)

0955-1015 Martin Bureau: Bar pattern speed measurements using multiple tracers for hundreds of MaNGA galaxies (CT)

1015-1035 Rebecca Smethurst: Strong and slow bars affect their hosts the most: The kinematics of strong and weak bars (CT)

1035-1055 Yun Hee Lee: Bar classification based on the potential map (CT)

1055-1125 Break (*Deadline to vote for posters*)

1125-1145 Marina Ruiz Garcia: Revealing dynamical resonances of bars in PHANGS galaxies (CT)

1145-1205 Sophia Stuber: Molecular gas morphologies in nearby main sequence galaxies (CT)

1205-1225 Johan Knapen: The distribution of star formation in galactic bars (CT)

1225-1245 Chandrashekar Murugesan: Connecting the dots: Link between bars, neutral hydrogen gas content and star formation in barred ring galaxies (CT)

1245-1305 Karen Masters: Finding bars in MaNGA galaxies with Galaxy Zoo: 3D (CT)

Free Afternoon

Thursday (6 July)

THE CENTRAL KPC OF BARRED GALAXIES

Chair: Karen Masters

0930-0955 Mattia Sormani: Fuelling nuclear rings and the bar-driven build up of nuclear stellar discs (IT)

0955-1015 Pierrick Verwilghen: Bar-driven building and evolution of central gas reservoirs: A new dynamic perspective from simulations (CT)

1015-1035 Tutku Kolcu: A MUSE view on gas inflows to the nuclei of barred galaxies (CT)
1035-1055 Camila de Sá-Freitas: Determining the cosmic epoch of bar formation using archeological data of nearby galaxies (CT)

1055-1125 Break

1125-1150 Adriana de Lorenzo Cáceres: Inclusion and diversity: Bars within bars (IT)

1150-1210 Monica Valluri: Early Growing Supermassive Black Holes Do Not Weaken Bars (CT)

THE MILKY WAY AS A BARRED GALAXY (PART 1)

1210-1245 Ken Freeman: Properties of the Milky Way from surveys (RT)

1245-1305 Danny Horta: Inferring the star formation and chemical evolution history of the Milky Way's bar from chemo-dynamical modelling (CT)

1305-1500 Lunch

Chair: Laura Sanchez-Menguiano

1500-1525 Jason Sanders: The epoch of bar formation in the Milky Way (IT)

1525-1545 Alex Cooke: The origin of the Milky-Way's bar from its last major merger (CT)

1545-1610 Daisuke Kawata: The Milky Way bar and its impacts on the kinematics of the disk stars, as revealed by Gaia (IT)

1610-1630 Leonardo Chaves-Velasquez: Gas dynamics and star formation in the central molecular zone and its connection with the Galactic bar (CT)

1630-1650 Jennifer Friske: Chemical evolution and gas flows in the Galactic nuclear disk (CT)

1650-1735 Break (45min Including Poster viewing for Pub Quiz)

1735-1835 Poster Pub Quiz

Friday (7 July)

BARS AT HIGH REDSHIFT

Chair: Camila de Sá-Freitas

1000-1025 Brooke Simmons: The formation and evolution of bars at high redshift (IT)

1025-1045 Joss Bland-Hawthorn: Do baryons dominate the centres of high-redshift galaxies? (CT)

1045-1105 Zoe Le Conte: A JWST investigation of the evolution of bar fraction and bar length at $1 < z < 3$ (CT)

1105-1125 Jairo Mendez-Abreu: The JWST view of the barred galaxy population in the distant Universe (CT)

1125-1145 Takafumi Tsukui: Bar-driven galaxy evolution at redshift 4.4? (CT)

1145-1215 Break

1215-1315 Structured discussion on open topics (*Leads: TBD*)

1315-1515 Lunch

THE MILKY WAY AS A BARRED GALAXY (PART 2)

Chair: Martin Bureau

1515-1530 Flash Talks (3 x 5min: top 3 voted posters)

1530-1550 Marcel Bernet: Constraining the Galactic bar properties with the Gaia DR3 phase space substructure (CT)

1550-1610 Ralph Schoenrich: The slowing Galactic bar in Gaia DR3 (CT)

1610-1630 Adam Dillamore: A stellar halo walks into a bar: creation of substructure from a smooth distribution function (CT)

1630-1650 Guillaume Thomas: Impact of the Milky Way bar on stellar streams: The case of Hyades (CT)

1650-1705 Concluding Remarks: Dimitri Gadotti