



Program



Mock Perth: Challenges for Simulations in the Era of SKA and Large IFU Surveys 20-22 March 2017, ICRAR, University of Western Australia

Day 1: Monday 20 March 2017

Time	Item
8:30am – 8:50am	Registration Desk Open
Welcome	
9:00am	Welcome/Acknowledgement of Country
9:05am – 9:10am	Welcome and Workshop Objectives Chris Power, SOC/LOC Chair
Session I: Physical Process on Small Scales – Part 1 Session Chair: Claudia Lagos	
9:10 – 9:45	Mark Krumholz <i>Star Formation and Feedback in Dwarf Galaxies</i> (25 min presentation + 10 min Q&A)
9:45 – 10:20	Naomi McClure-Griffiths <i>ISM Evolution in the Milky Way and Magellanic System</i> (25 min presentation + 10 min Q&A)
10:20 – 10:40	Attila Popping <i>The Extended HI Properties of Galaxies with IMAGINE</i> (15 min presentation + 5 min Q&A)
10:40 – 11:00	Rodrigo Canas <i>The Importance of the Identification of Simulated Galaxies</i> (15 min presentation + 5 min Q&A)
11:00 – 11:30	Morning Tea

Session II: Physical Process on Small Scales – Part 2

Session Chair: Chris Power

11:30 – 12:00	Brent Groves <i>Photoionization and ISM Heating in Low Mass Galaxies</i> (20 min presentation + 10 min Q&A)
12:00 – 12:30	JJ Eldridge A Double Take on Stellar Population Synthesis (20 min presentation + 10 min Q&A)
12:30 – 13:00	Group Discussion: Physical Processes on Small Scales (30 minutes discussion)
13:00 – 14:00	Lunch
Session III: Galaxy Formation and Evolution – State of the Art Part I	
Session Chair: Charlotte Welker	
14:00 – 14:35	Matthieu Schaller <i>Dwarf Galaxies in the EAGLE Simulation and Future Runs</i> (25 min presentation + 10 min Q&A)
14:35 – 15:10	Violeta Gonzalez-Perez <i>Summary of SAMs: State-of-the-Art and What's Next</i> (25 min presentation + 10 min Q&A)
15:10 – 15:30	Pascal Elahi <i>Synthetic UniveRses for Surveys</i> (15 min presentation + 5 min Q&A)
15:30 – 16:00	Afternoon Tea

Session IV: Galaxy Formation and Evolution - State of the Art Part II

Session Chair: Violeta Gonzalez-Perez

16:00 – 16:30	Elisabete Da Cunha <i>SEDs.</i> (20 min presentation + 10 min Q&A)
16:30 – 16:50	Gerhardt Meurer <i>IMF Variations and Effects on Galaxy Formation</i> (15 min presentation + 5 min Q&A)
16:50 – 17:20	Alex Knebe <i>Mocking Astrophysics</i> (20 min presentation + 10 min Q&A)
17:20:17:40	Manodeep Sinha <i>The TAO of Building Mock Galaxy Catalogues</i> (15 min presentation + 5 min Q&A)
17:40 – 18:00	“Challenges for Connecting Cosmological Simulations with Small Scale Physical Phenomena” Chair: Discussion all together and people should decide here at the latest which break-out groups they want to participate in on Tuesday and Wednesday. Separating people into 4 discussion groups to start follow this on Tuesday: - Small scale physical phenomena (Group 1). - Dynamics of galaxies and current/future IFU surveys (Group 2). - EoR and the high-redshift universe (Group 3) - Synergies between radio and optical telescopes and what is needed from simulations (Group 4)
18:30	Welcome Drinks at ICRAR

Day 2: Tuesday 21 March 2017

Time	Item
8:30am – 8:50am	Registration Desk Open
Session V: Galaxy Dynamics and Angular Momentum – Part I	
Session Chair: Matthieu Schaller	
9:00 – 9:35	Nelson Padilla <i>When to Care About the Angular Momentum of Your Model Galaxies When Making Mock Catalogues</i> (25 min presentation + 10 min Q&A)
9:35 – 10:05	Danail Obreschkow <i>Observational Status of Angular Momentum in Galaxies</i> (20 min presentation + 10 min Q&A)
10:05 – 10:25	Kate Harborne <i>Extracting Meaningful Kinematics from Simulated Galaxies</i> (15 min presentation + 5 min Q&A)
10:25 – 10:45	Charlotte Welker <i>Connecting Galaxy Dynamics to Cosmic Flows</i> (15 min presentation + 5 min Q&A)
10:45 – 11:05	Anna Weigel <i>A Phenomenological Model for the Origin of Fast and Slow Rotating Early Type Galaxies</i> (15 min presentation + 5 min Q&A)
11:05 – 11:35	Morning Tea
Session VI: Galaxy Dynamics and Angular Momentum – Part II	
Session Chair: Adam Stevens	
11:35 – 11:55	Liang Wang <i>Angular Momentum Evolution of Bulge Stars in Spiral Galaxies</i> (20 min presentation + 5 min Q&A)
11:55 – 12:15	Rhys Poulton <i>Be Nice to Satellites, they're Going Through a Tough Phase</i> (15 min presentation + 5 min Q&A)
12:15 – 12:35	Kirsty Butler <i>Angular Momentum of Dwarf Galaxies</i> (15 min presentation + 5 min Q&A)
12:35 – 13:40	Lunch
Session VII: Break-out Session	
Session Chair:	
13:40 – 15:00	Break-out sessions:

	<ul style="list-style-type: none"> - Choose a chair for your group. - Identify main challenges in your area. - Think of synergies between simulations/observations and how to maximise that. - Come out with suggestions for how to achieve that.
15:00 – 15:30	Afternoon Tea
Session VIII: Epoch of Reionisation and High-Redshift Galaxies	
Session Chair: Alex Knebe	
15:30 – 16:00	Cath Trott <i>Future Prospects for Detecting the EoR using 21cm HI Signal</i> (20 min presentation + 10 min Q&A)
16:00 – 16:30	Simon Mutch <i>Modelling High-z Galaxy Formation and the EoR with SAMs</i> (20 min presentation + 10 min Q&A)
16:30 – 16:50	Anne Hutter <i>Exploring 21cm: Lyman Alpha Emitter Synergies for SKA</i> (15 min presentation + 5 min Q&A)
16:50 – 17:10	Hansik Kim <i>A Hybrid Multiresolution Scheme to Efficiently Model the Structure of Reionization on the Largest Scales</i> (15 min presentation + 5 min Q&A)
17:10 – 17:30	Jacob Seiler <i>#nofilter: SAGE and the Epoch of Reionization, How Relevant is the Filtering Mass?</i> (15 min presentation + 5 min Q&A)
17:30 – 18:00	Discussion
19:00	Social Dinner – Restaurant near ICRAR

Day 3: Wednesday 22 March 2017

Time	Item
8:30am – 8:50am	Registration Desk Open
Session IX: HI in Galaxies and Environment – Part I	
Session Chair: Ivy Wong	
9:00 – 9:35	Luca Cortese <i>Review of HI/Gas/Dust in Galaxies</i> (25 min presentation + 10 min Q&A)
9:35 – 10:05	Jing Wang <i>The Complexity of the Simple HI Size-Mass Relation of Galaxies</i> (25 min presentation + 10 min Q&A)
10:05 – 10:40	Martin Meyer <i>What ASKAP will tell us about Galaxy Evolution : Early Science Results and Prospects for the Future</i> (25 min presentation + 10 min Q&A)
10:40 – 11:0	Virginia Kilborn <i>The Impact of Environment on HI in Galaxies</i> (15 min presentation + 5 min Q&A)
11:00 – 11:30	Morning Tea
Session X: HI in Galaxies and Environment – Part II	
Session Chair: Nelson Padilla	
11:30 – 11:50	Toby Brown <i>HI Stripping in Satellite Galaxies</i> (15 min presentation + 5 min Q&A)
11:50 – 12:10	Adam Stevens <i>Environmental and Evolutionary Effects on Semi-Analytic Galaxies' HI Content</i> (15 min presentation + 5 min Q&A)
12:10 – 12:30	Jonghwan Rhee <i>HI Gas Evolution Over Cosmic Time</i> (15 min presentation + 5 min Q&A)
12:30 – 13:00	Break-out sessions: - Continue discussion and prepare a 5 minutes talk for what are the main conclusions of the discussion in the group.
13:00 – 14:00	Lunch
Session XII: Summary and Close	
Session Chair: Chris Power/Claudia Lagos	
14:00 – 14:10	Conclusions of discussion group 1 – Chair group 1

14:10 - 14:20	Conclusions of discussion group 2 - Chair group 2
14:20 - 14:30	Conclusions of discussion group 3 - Chair group 3
14:30 - 14:40	Conclusions of discussion group 4 - Chair group 4
14:40 - 15:00	Discussion and concluding remarks
15:00	Afternoon Tea and Close