

CIM - Workshop on cosmic ray transport and magnetic fields in the ISM and the CGM

Time	Monday, 17th	Tuesday, 18th	Wednesday, 19th
Block 1 09:00 - 10:30	Introduction 09:00-09:10: Welcome (R.-J. Dettmar & M. Stein) 09:10-09:20: SFB 1491 CIM (E. Jütte) CR Transport and CR-Driven Galactic Winds Chair: Maria Werhan & Björn Adebahr 09:20-10:00: Overview: Simulating CR Transport (P. Girichidis) 10:00-10:25: Overview: CR Transport in Radio Continuum (V. Heesen)	Radio emission in galaxy clusters Chair: Aritra Basu 09:00-09:25: Cosmic rays in the Perseus Cluster (R. van Weeren, online) 09:25-09:50: A LOFAR perspective on ram pressure stripping, cosmic ray transport, and galaxy evolution in galaxy clusters (A. Ignesti) 09:50-10:15: Role of magnetic fields in ram pressure stripped galaxies and an Update on the Changes S-band Survey (A. Müller)	Tools & Techniques Chair: Lukas Merten 09:00-09:25: Revealing the Invisible - Rotation Measure Synthesis at Work (M. Soida) 09:25-09:50: Overview: CRPropa 3.2 (A. Aravinthan) 09:50-10:15: Radio observations at the lowest frequencies: techniques and current status (F. de Gasperin, online) 10:15-10:30: Discussion on "Tools & Techniques and future observations"
	Coffee-Break 10:30-11:00		
Block 2 11:00 - 12:30	11:00-11:25: Cosmic Ray Hydrodynamics: Theory and Galactic Winds (T. Thomas) 11:25-11:50: CR Transport in M51 (J. Dörner) 11:50-11:55: CR Transport in Edge on Galaxies (M. Stein) 11:50-11:55: Baryonic Galaxy Halos (D. J. Bomans) 12:00-12:30: Discussion on "CR Transport and CR-Driven Galactic Winds"	11:00-11:25: An overview of Odd Radio Circles (B. Adebahr) 11:25-11:50: Studies of Energetic Particle Transport in Synthetic Turbulence and Lessons Learned from the Heliospheric Plasma Laboratory (F. Effenberger) 11:50-12:30: Discussion on "Radio emission in galaxy clusters"	High Energy Sources Chair: Julia Tjus 11:00-11:25: Radio galaxies – sources of ultrahigh energy cosmic rays? (B. Eichmann) 11:25-11:50: Cosmic rays in local clouds (F. Kamal Youssef) 11:50-11:55: Propagation of cosmic rays within IC10 (J. Völp) 11:55-12:00: LyC emitting galaxies (A. Enders) 12:00-12:05: Non-thermal emission signatures from blazars (M. Schroller) CR propagation Chair: Julia Tjus 12:05-12:30: Cosmic ray propagation inside the heliosphere (S. Salvatore)
	Lunch 12:30-13:30		
Block 3 13:30 - 15:00	13:30-13:55: Cosmic-ray and magnetic-field topologies (I. Grenier, online) Radio emission in galaxies Chair: Volker Heesen 13:55-14:20: Simulating radio synchrotron emission in star-forming galaxies: small-scale magnetic dynamo and the origin of the far infrared–radio correlation (C. Pfrommer) 14:20-14:45: Cosmic rays and non-thermal emission in simulated galaxies (M. Werhahn)	Magnetic fields in galaxies Chair: Ancla Müller 13:30-13:55: Galactic magnetic fields in cosmological simulations (R. Pakmor) 13:55-14:20: Confronting dynamo models and MHD simulations of galaxies with observations (R. Beck) 14:20-14:45: Gas heating by magnetic reconnection in spiral galaxies - not just theory? (M. Weżgowiec) 14:45-14:50: Polarized Sources in Apertif (A. Berger) 14:50-14:55: Solenoidal improvements for the JF12 Galactic magnetic field models (J. Kleimann)	13:30-13:55: Cosmic Ray Transport in the Shin region using Stochastic Differential Equations (L. Merten) 13:55-14:00: Nonlinear diffusion (D. Walter) 14:00-14:30: Discussion on "CR propagation & High Energy Sources" 14:30-14:35: Closing Remarks
	Coffee-Break 15:00-15:30		
Block 4 15:30 - 17:00	15:30-15:55: Radio–infrared relations in nearby and distant galaxies (A. Basu) 15:55-16:20: Spectral evolution of CR electrons and their synchrotron emission in MHD models of spiral galaxies (M. Hanasz) 16:20-17:00: Discussion on "Radio emission in galaxies"	CR acceleration and transport Chair: Christoph Pfrommer 15:30-15:55: CR spectra in the high precision era (G. Morlino) 15:55-16:20: The mechanism of efficient electron acceleration at parallel non-relativistic electron-ion shocks (M. Shalaby) 16:20-17:00: Discussion on "Magnetic fields and CR transport"	
	End of the Day		
Evening 18:00 - 19:00	18:00-19:00: Welcome Reception		