

# Winter Schools (Monday 4 July 2016)

Registration on Monday 4 July: Kramer building, 08:00 - 09:00

## From the Smallest to the Largest Scales: Our Evolving Universe (Kramer LT2)

TIME	TOPIC / TITLE	PRESENTER
09:00 - 09:25	Coffee fueling, Welcome & Logistics	<b>Dr. Tom Jarrett</b> (Univ of Cape Town)
09:25 - 09:30	Opening Remarks	<b>Dr. Rob Adam</b> (Director, SKA-SA)
09:30 - 10:15	The State of the Universe	<b>Dr. Steven Kahn</b> (Stanford Univ)
10:15 - 11:00	Particle physics -- a window into the early universe	<b>Dr. Heribert Weigert</b> (Univ. Cape Town)
11:00 - 11:20 Refreshment break		
11:20 - 12:05	The Exploration of the Early Universe with the Large Hadron Collider	<b>Dr. Helen Hayward</b> (University of Liverpool)
12:05 - 12:20	Brief talks by UCT Physics PhD students	<b>Various</b>
12:30 - 13:30	Lunch Talk : Exploring the early universe with the SKA	<b>Dr Obinna Umeh</b> (Univ. Western Cape)
13:30 - 14:15	The Stormy Cosmos: Life and Times of a Waning Universe	<b>Dr. Michelle Cluver</b> (Univ. Western Cape)
14:15 - 15:00	Studies of Galaxy Evolution with MeerKAT	<b>Dr. Brad Frank</b> (SKA-SA ; Univ. Cape Town)
15:00 - 15:25	Brief talks by UCT Astro PhD students	<b>Mr. Moses Mogotsi</b> (Dr. Bishop Mongwane)
15:25 - 16:00	Panel Discussion	<b>Participants</b>

## The Biophysics of Cells and Macromolecules Programme (Kramer LT3)

TIME	TOPIC / TITLE	PRESENTER
09:00 - 10:00	Biological photovoltaic building blocks for solar energy harvesting	<b>Raoul Frese</b> (VU University Amsterdam)
10:00 - 10:30	The cytoskeleton and membrane: thermal and mechanical properties I	<b>Kristian Müller-Nedebock</b> (SU)
10:30 - 11:00 <b>TEA</b>		
11:00 - 11:30	The cytoskeleton and membrane: thermal and mechanical properties II	<b>Kristian Müller-Nedebock</b> (SU)
11:30 - 12:15	Single-molecule spectroscopy: Beyond the ensemble average	<b>Tjaart Krüger</b> (UP)
12:15 - 13:00	Higher order structures and noise filtering in biological signal cascades	<b>Musa Mhlanga</b> (UCT)
13:00 - 14:00 <b>LUNCH</b>		
14:00 - 14:40	Structure and Affinity of Protein Complexes in Infectious Diseases	<b>Wolf-Dieter Schubert</b> (UP)
14:40 - 15:20	Studying large (>400 kDa) macromolecular complexes	<b>Jeremy Woodward</b> (UCT)
15:20 - 16:00	An experimental physicist's view of enzyme reaction mechanisms	<b>Trevor Sewell</b> (UCT)
16:00 - 17:00 <b>TEA</b>		

Registration on Monday 4 July: Kramer building, 16:00 - 18:00