

Join us to our

NITheP Colloquium

Monday, 24 August 2020 Time: 16h00

Prof Amanda Weltman

University of Cape Town



Fundamental Physics in the Radio Sky

Abstract In this talk we will explore together the remarkable ways that we can learn about universe by studying very short bursts of radio waves travelling to us from the far reaches of our galaxy and well beyond.

Bio: Amanda Weltman is presently the NRF/DHEST South African Research Chair in Physical Cosmology and Professor at the Department of Mathematics & Applied Mathematics at the University of Cape Town. She is also the Director of the High Energy Physics, Cosmology & Astrophysics Theory group (hepcat.group) and serves as the Associate Editor for Mathematics, Physics and Astronomy for the South African Journal of Science.

She completed her PhD under the supervision of Prof. Brian Greene at Columbia University, NYC, USA in 2007 and joined both the faculty at the University of Cape Town and took up a prestigious Centre for Theoretical Cosmology postdoctoral position at the Department of Applied Mathematics and Theoretical Physics at Cambridge University in the UK that same year. After almost a decade abroad, her devotion to South Africa brought Dr Weltman back to South Africa in 2009 to build the education and science sectors of the country. She believes deeply in the importance of science and mathematics education as the cornerstones to a knowledge economy and is committed to being a part of building South Africa's bright future.

Weltman is most well known for proposing the Chameleon field - a particle that could be responsible for causing the observed accelerated expansion of the universe while also causing interesting and unexpected local and solar system physics effects that could be observed in purpose built experiments. Aside from novel theories and probes of dark energy, Weltman is working on understanding the engines driving Fast Radio Bursts and using them for cosmology.

Since her return to SA in 2009, Prof Weltman has won several national awards for her research and her contributions to the public understanding of science, including the National Women in Science award for the Best Emerging Young Researcher in the Natural Sciences and Engineering, the Meiring Naude Medal from the Royal Society of South Africa, the NSTF-BHP Billiton, TW Kambule Award To an Emerging Researcher for an outstanding contribution to SETI through Research and its Outputs, the Silver Jubilee medal from the South African Institute of Physics and the Inaugural Next Einstein Fellows award. She is currently also an ICTP Trieste Simons Associate and serves on the Scientific Advisory board for the ICTP - EAFIR in Rwanda.

Register in advance for this webinar:

https://ukzn.zoom.us/webinar/register/WN_7uFNPkPFSKKnAkW8_qketw

After registering, you will receive a confirmation email containing information about joining the webinar.

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