



Gastreferat

Dienstag, 25. Oktober 2016
17.10 Uhr im Gebäude 4, Raum 4.006a

Receiver Systems for Radio Astronomy

Why temperature and noise have more in common than a unit

Speaker:

Christoph Brem
M.Sc., Dipl. El. Ing. FH, HF Systems Engineer, Skyguide Ltd.



While not often in the scientific spotlight, radio astronomy is an important contributor to our understanding of the Universe. It is a fast evolving field and modern radio telescopes have high demands on best possible receiver performance.

The talk will look at receiver systems used for radio astronomy with a particular focus on cryogenically cooled receivers. To understand the use of these systems in the context of their application, the presentation will also cover some basic principles of radio astronomy and the different types of radio telescopes currently in use and under construction in Australia.

Speaker

Christoph Brem studied Electrical Engineering at the HSR in Rapperswil, where his last year of study focused on RF Engineering. He also holds a Master's Degree in Astronomy from the Center for Astrophysics and Supercomputing at Swinburne University of Technology, based in Melbourne, Australia. From 2007 until 2016 he worked for CSIRO, Australia's national science agency, holding different positions in the field of radio astronomy instrumentation and observatory operations.



During the Antarctic summer 2010/2011 he also worked at the South Pole Telescope, which is operated by the University of Chicago. For his work while deployed to Antarctica he was awarded the Antarctica Service Medal from the United States National Science Foundation (NSF).

Since April 2016 Christoph Brem is back in Switzerland working for Skyguide as Project Manager and Systems Engineer AIR COM.