German LOFAR

Rainer Beck

MPIfR Bonn
LOFAR activities in Germany

- May 2004: First German LOFAR meeting in Bremen
- Sept 2005: Publication of the German LOFAR White Paper
- Sept 2005: First German LOFAR workshop in Cologne
- April 2006: Formation of GLOW (German Long Wavelength Consortium)
- May 2006: MoU between ASTRON and FZ Jülich
- Dec 2006: MoU between LOFAR and MPIfR
- Dec 2006: Construction of LOFAR station at Effelsberg
- Jan/March 2007: Submission of KSP proposals
- Mar 21 2007: First light for the Effelsberg station
- ~ May 2007: MoU between LOFAR and GLOW
- ~ Oct 2007: Data link between Effelsberg and Bonn
First GLOW Council meeting
Potsdam 2006 May 5
Members of the German Long Wavelength Consortium (GLOW)

- Astronomisches Institut der Ruhr-Universität Bochum
- Argelander-Institut für Astronomie Bonn
- Max-Planck-Institut für Radioastronomie Bonn
- International University Bremen
- Max-Planck-Institut für Astrophysik Garching
- Sternwarte Hamburg
- Forschungszentrum Jülich
- 1. Physikalisches Institut der Universität Köln
- Astrophysikalisches Institut Potsdam
- Thüringische Landessternwarte Tautenburg
Organisation of GLOW

Members

Council

Board

Chairman
Anton Zensus

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Secretary
Rainer Beck

Ralf-Jürgen Dettmar

Matthias Steinmetz

Working Groups

Science WG
Benedetta Ciardi

Technical WG
Wolfgang Reich
First 7 LOFAR stations in Germany

Wanted:

At least 5 more stations
International Station Germany 1 (IS-GE1) at Effelsberg
2007 March 21: "First light !"
May 2006: Contract with ASTRON
May 2006: RFI measurements
Autumn 2006: Preparation of site
Early 2007: Installation of low-band antennas
~ Oct 2007: Fast data link to Bonn
~ End 2007: Joint observations with Exloo core station CS-1
2008: High-band antennas
Glas fibre links (3 Gbit/s):

- Effelsberg
- → Bonn
- → via DFN to FZ Jülich
- → via Surfnet to Groningen
IS-GE2: Garching / Unterweilenbach
IS-GE3: Potsdam/Bornim (2008)
Contributions to LOFAR software

- **Software for stand-alone station**
  (MPIfR Bonn)

- **Data storage and supercomputing**
  (FZ Jülich)

- **Software infrastructure**
  (MPA Garching)

- **GRID computing**
  (AIP Potsdam, FZ Jülich, MPIfR Bonn)

- **Solar data center**
  (AIP Potsdam)

- ...
LOFAR science interests in Germany

- **Cosmology:** Epoch of Reionization and large-scale structures
  (MPA Garching, Int. Univ. Bremen, AIP Potsdam)
- **Magnetic fields in galaxies, clusters and relics**
  (MPIfR Bonn, Univ. Bochum, Univ. Bonn, MPA Garching, AIP Potsdam)
- **Milky Way surveys**
  (MPIfR Bonn, AIP Potsdam)
- **Stellar jets**
  (Tautenburg Observatory, MPIfR)
- **Gravitational lenses**
  (Univ. Bonn & Hamburg Observatory)
- **Exoplanets**
  (Tautenburg Observatory, Hamburg Observatory)
- **Solar physics**
  (AIP Potsdam)
- ...
Proposals for International LOFAR Key Science Projects

- Polarization / magnetic fields
  (submitted in Jan 2007)

- Solar radio astronomy
  (submitted in March 2007)

- Stellar and galactic jets
  (in prep)
E-LOFAR: excellent prospects for European radio astronomy