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# SPLINTER SESSION

## « RADIO SCIENCE »

### SUMMARY



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# EXISTING PROJECTS

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- BRAMS network : meteor echoes detection, studies of meteoroid trajectories (Dourbes, Humain, Uccle, several stations accross Belgium)  $f \sim 50$  MHz
- VLF experiment (Humain) : whistler waves detection ;  $f =$  a few KHz
- Monitoring solar activities (Humain) : spectrometer (solar flares, CMEs, shocks, ..) + flux monitoring at specific frequencies (solar flares, solar cycle studies + F10.7cm)  $\rightarrow$  metric to centimetric ranges



# EXISTING PROJECTS (2)

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- GPS receivers : TEC, tomography, development of new technology, filtering, ...
- Radio science on planets: influence of the various plasmas between Earth's ground and planet's ground (X and S bands,  $f=7.15$  and  $8.4$  GHz for X-band and  $2.4$  GHz for S-band)
- Radar activities from RMI (Widemont) + ionosonde in Dourbes + experiments onboard balloons + lightning detection system



# GATHERING EXPERTISE ABOUT RADIO SCIENCE



- Sharing knowledge, expertise, hardware, testing facilities, etc... => lists
- Organize a half-day where everyone could present their project, what they know, what they need, .. → september/october
- Create a mailing-list where people could ask specific questions and ask for help
- Wiki pages? We started one at BIRA
- CESRA 2010 : radio solar science (La Roche, 15-19 June)



# PROTECTION OF BELGIAN RADIO EXPERIMENTS

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- Humain : problems with a future windmill park of Electrabel
- Contacts with BIPT
- CRAF meetings : for protection of radioastronomy frequencies



# THE DATA

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- Can the collected data be useful for other communities?
- Example : VLF measurements could be interesting for SW applications? Meteor forward scattering systems could be used for meteorological applications ? Tomography applications with GPS receivers can measure water vapor content in the troposphere and the TEC in the ionosphere.

