

**V2C Workshop on Digital Back Ends (DBE's) and
Software Correlators for VLBI2010,**

**March 21, 2009 (immediately after the 3-day IVS FRFF workshop)
Wetzell, Germany**

The goal of this one-day workshop is to define the requirements and consider implementation issues for the VLBI2010 Digital Back End (DBE's) and Software Correlator. Decisions need to be made in a timely manner to ensure that these sub-systems are available for the start of VLBI2010 operations, which are expected to begin in a limited way as early as 2012. Talks and discussion will be guided by the VLBI2010 goal of achieving 1-mm position accuracy in 24 hours. The workshop will be divided into invited talks (to set the VLBI2010 context for each of the two sub-systems), informal contributed talks and discussion.

Topics for the VLBI2010 DBE:

- Functional requirements, specifications and block diagram for the VLBI2010 DBE
- Summary of existing DBE/DBBC designs.
- Issues related to adapting an existing DBE design for VLBI2010.
- Issues related to developing, if necessary, a new DBE design (sub-system, board, and/or FPGA) for VLBI2010.
- Next steps for realizing a VLBI2010 DBE.

Topics for the VLBI2010 Software Correlator:

- Special correlator requirements for geodesy and VLBI2010
- Summary of existing Software Correlator designs
- Issues related to adapting an existing Software Correlator design for VLBI2010.
- Choices and recommendations for correlator control and data output files.
- Next steps for implementing a VLBI2010 Software Correlator.