ASTRON

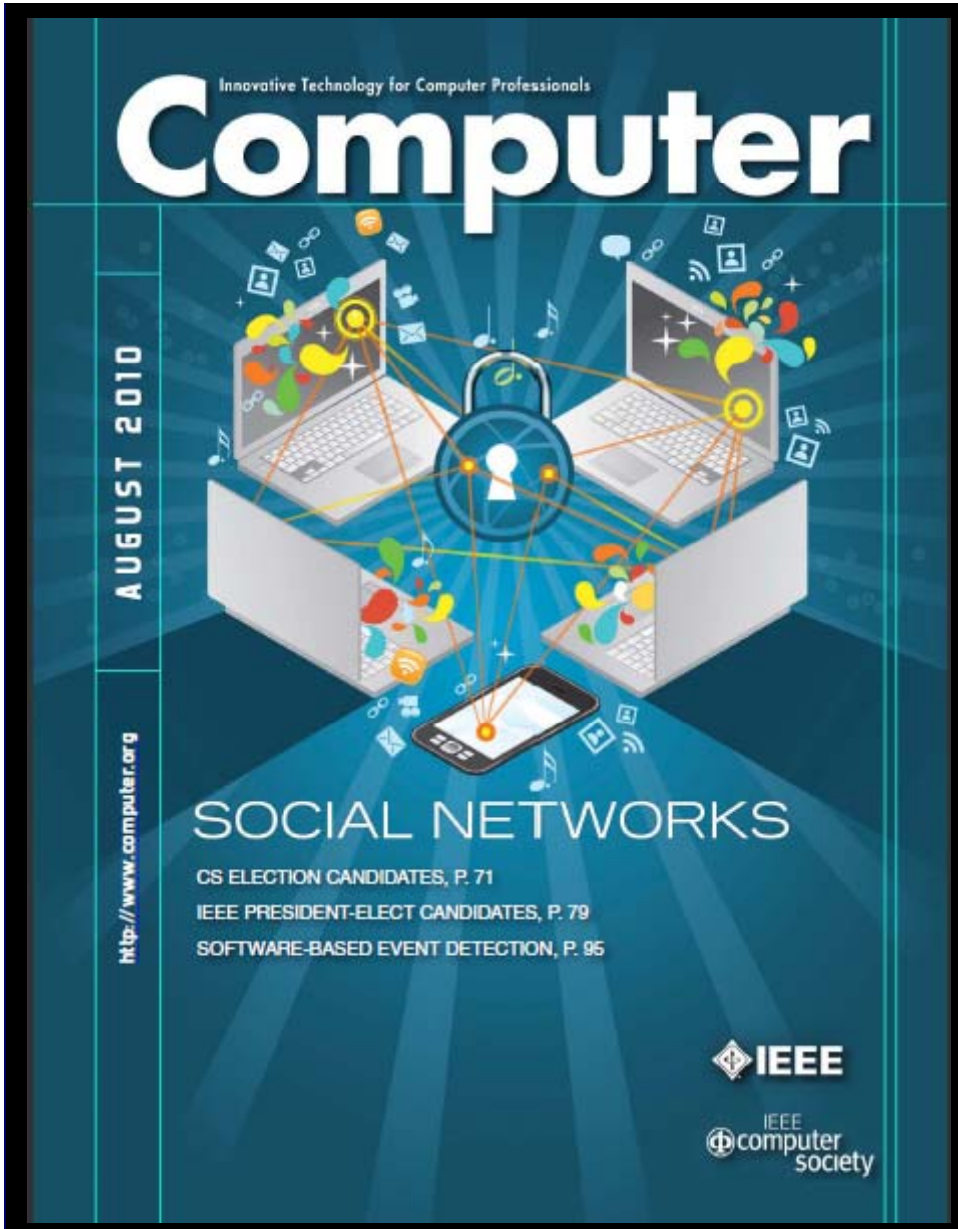
Netherlands Institute for Radio Astronomy

Welcome to CALIM 2010

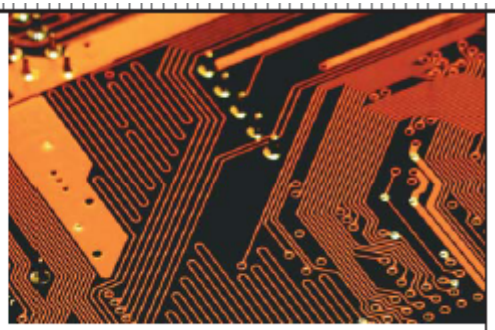
Dr. Marco de Vos – Director of R&D
(devos@astron.nl)

CALIM 2010: The 5th SKA Workshop on Calibration and Imaging

22 - 27 August 2010, Dwingeloo (NL)



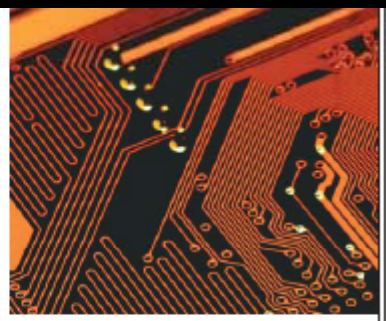
Real-World Distributed Computer with Ibis



Henri E. Bal, Jason Maassen, Rob V. van Nieuwpoort, Niels Drost, Roelof Kemp, Timo van Kessel, Nick Palmer, Gosia Wrzesińska, Thilo Kielmann, Kees van Reeuwijk, Frank J. Seinstra, Ceriel J.H. Jacobs, and Kees Verstoep
Vrije Universiteit, Amsterdam

The use of parallel and distributed computing systems is essential to meet the ever-increasing computational demands of many scientific and industrial applications. Ibis allows easy programming and deployment of compute-intensive distributed applications, even for dynamic, faulty, and heterogeneous environments.

Simulating the Universe on an Intercontinental Grid



Simon Portegies Zwart, *Leiden Observatory*
Tomoaki Ishiyama, *University of Tokyo*
Derek Groen, *Leiden Observatory*
Keigo Nitadori, *RIKEN*
Junichiro Makino, *National Astronomical Observatory of Japan*
Cees de Laat, *University of Amsterdam*
Stephen McMillan, *Drexel University*
Kei Hiraki, *University of Tokyo*
Stefan Harfst, *Leiden Observatory*
Paola Grosso, *University of Amsterdam*

The computational requirements of simulating a sector of the universe led an international team of researchers to try concurrent processing on two supercomputers half a world apart. Data traveled nearly 27,000 km in 0.277 second, crisscrossing two oceans to go from Amsterdam to Tokyo and back.