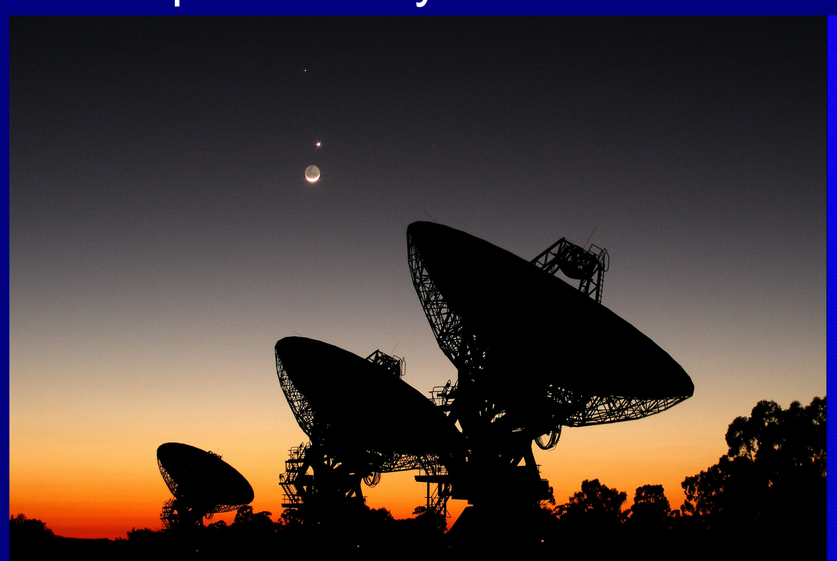
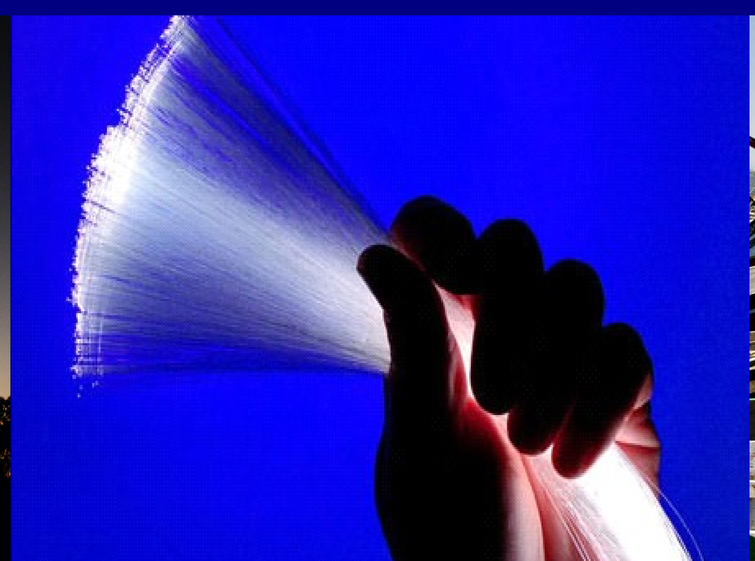
4th RadioNet Engineering Forum Workshop

Photonics in radio astronomy

Venue: Instituto de Telecomunicações, U. Aveiro
Portugal, 2nd-3rd September 2010

RATIONALE: Photonics in the heart of radio astronomy receivers and networks is a natural path for development for the next advanced generation of radio astronomy experiments: It allows reduction on receiver size, allowing the IF complex receiver circuitry to be hosted at distant locations; it promises efficient beam forming for Phase Arrays. Also, optical fibre high efficiency to accurately transport massive quantities data, with potentially dozens of THz available for transmission became critical to performance of today's and future radio telescope networks, as is already demonstrated by e-EVN, e-Merlin, ALMA, the soon starting LOFAR and e-VLA and it will be even more so for the large Terabits/sec expected from the SKA. We intend to review current trends in photonics and its use in radio astronomy applications, in receivers and signal transport. Some real world cutting-edge examples will be provided by some industries.





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Deadlines : 20th July 2010 — **Abstract Submission**
1st August 2010 — **Hotel+ Registration**

http://www.radionet-eu.org/fp7wiki/doku.php?id=na:engineering:ew:4thew

Topics:

- RF Bandwidth needs
- Beam forming techniques
- Signal transport
- Single Dishes
- Synthesis Array Networks
- Large baselines Telescopes
- e-VLBI
- LOFAR
- ALMA
- MeerKAT
- ASKAP
- Goal: SKA

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