Contribution ID: **28** Type: **Specialised Talk**

Searching for neutrino radio flashes from the Moon with LOFAR

Tuesday 19 June 2012 15:35 (20 minutes)

Detection of ultra-high-energy neutrinos requires vast natural detector volumes of ice or rock. The Moon itself is the largest detector mass available. Earthbound radio telescopes can search the Lunar surface for radio flashes, produced by neutrinos through the Askaryan mechanism. A new generation of low-frequency, digital radio arrays, spearheaded by LOFAR, will allow for searches of unprecedented sensitivity.

The NuMoon program aims to use LOFAR to search the Moon for neutrino or cosmic-ray induced radio flashes. In this talk I will present the progress that is being made to prepare the instrument for NuMoon science runs, and discuss the experimental challenges and expected sensitivity.

Author: BUITINK, Stijn (Rijksuniversiteit Groningen)

Presenter: BUITINK, Stijn (Rijksuniversiteit Groningen)

Session Classification: Radio Detection in Dense Media