

# Magnetism and Variability in O stars

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Milena Hoekstra  
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## FIRST ANNOUNCEMENT

Magnetism and Variability in O stars  
17-19 September 2014  
Amsterdam (Netherlands)

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## \* IMPORTANT DATES:

First announcement and pre-registration: December 20th, 2013  
Second announcement and registration: February 15th, 2014  
Early payment fee (275 â,-): before May 1st, 2014  
Regular payment fee (325 â,-)  
Registration closed: June 15th, 2014  
Conference: 17 -19 September 2014

## \* SCIENTIFIC RATIONALE:

For more than 30 years, spectroscopic observations from space have shown that wind variability in massive OB stars is a widespread phenomenon. This variability is not strictly periodic, but cyclic (like sunspots) with a dominant quasi period that scales with the estimated rotation period. The underlying cause or trigger of this variability is not known. The major time-variable wind features likely find their origin close to, or at the surface and have been suggested to be connected to non-radial pulsations or bright magnetic star spots.

The past few years have shown very promising new developments, both observationally and theoretically. High-precision space-based photometry reveals rapid variations, incompatible with pulsations, but consistent with the continuous presence of a multitude of co-rotating bright spots that live at most a few days. These spots are suggested to be of magnetic origin and could trigger large-scale wind variability. Theoretical studies show that magnetic fields can be generated with a short estimated turnover time in sub-surface convective layers in massive stars. These may lead to magnetic spots.

Understanding the role of magnetic fields and variability in O and early B stars is a major challenge in massive star research. This is the focus of a 3-day conference to be held in Amsterdam, organized to mark the formal retirement of Huib Henrichs, who has worked in this field throughout his scientific life.

This conference will be organized in a somewhat different way. Rather than having a skeleton with specific names of invited speakers, the community is invited to come forward on their own accord, thus giving more people a chance to provide their input. From this, a list of speakers and topics will be drawn up, with ample time for discussion. The aim is 25 and 15 min talks (each including discussion) and posters.

Reference: N/A  
Status: Other

Weblink: <http://www.astro.uva.nl/ostars/>

Comments: