CARL VON OSSIETZKY universität OLDENBURG
Institut für PHYSIK

PHYSICAL COLLOQUIUM

INVITATION

Monday, 23.10.2017, 4.15 p.m., W2-1-148

speaks

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about

How to find an Exoplanet?

Instrumentation in Astrophysics

The question, “Are we alone in the universe?” can be replaced by “Where do we find live first?”, nowadays. In the past twenty years we found an unexpected high number of exoplanets which is already indicating how many planets exist. To find planets, the radial-velocity-method and the transit-method have been the most successful. With the telescopes and instruments today they already allow for detection of planets in the habitable zone. For the measurement of their atmosphere even larger telescopes with even more sensitive instruments are being developed. In this talk the radial-velocity-method will be explained and how this method can be implemented with current instrumentation projects like the high-resolution spectrograph (HIRES) for the extremly large telescope (ELT). Indispensable to this are new technologies for gauging and calibration. At the Institute for Astrophysics in Göttingen research aims at the development of calibration standards to be implemented in calibration units for different spectrographs. At the end of the talk the scientific goals of HIRES and their possible influence on our physical modell will be illustrated.

All interested persons are cordially invited.

Sgd. Prof. Walter Neu