



university of
 groningen

faculty of science
 and engineering

Faculty Spotlight

Monday May 20, 2019
4 pm | Bernoulliborg | room 105

Faculty colloquium for scientific staff

Speaker: Prof. Bayu Jayawardhana Hysteretic Deformable Mirror Project: a quest for finding an earth twin

The quest for finding an earth twin is no longer in the realm of science fiction and it has become one of primary goals in many scientific projects, such as, the NASA HabEx (Habitable Exoplanet) mission. Although thousands of exoplanets have been identified, the current state of technology limits our capability in measuring and understanding these exoplanets beyond their mass, radius, orbital period and distance to the host star.

In this Spotlight, we will discuss our recent development of a novel deformable mirror, the so-called Hysteretic Deformable Mirror, for wavefront correction in advanced imaging systems. By exploiting the hysteresis behaviour, which is often undesirable in most of high-precision systems, a high pixel (actuator) numbers can be realised that allows for high spatial frequency wavefront correction. The demonstrator is currently being built and tested by a multidisciplinary team from ENTEG (Engineering and Technology institute Groningen), ZIAM (Zernike Institute for Advanced Material), SRON (Netherlands Institute for Space Research) and KAI (Kapteyn Astronomical Institute).

