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# 国台学术报告 NAOC COLLOQUIUM

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**Time: Wednesday 2:30 PM, Mar.14th**    **Location: A601, NAOC**

## Seeing clearly: How the new technology of adaptive optics is transforming optical astronomy

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Paul Hickson obtained his PhD from Caltech in 1976, working on galaxy clusters and cosmology. He is currently a Professor in the Department of Physics and Astronomy at the University of British Columbia, Canada. His research interests include galaxy groups, AGN, optics, adaptive optics, and astronomical instrumentation. He has served as Chair of the Science Advisory Committee for the Thirty Meter Telescope, and for several years was Project Scientist for its facility adaptive optics system. Presently he is involved in adaptive optics research, remote sensing of atmospheric turbulence, and the development of new astronomical facilities and instruments.

### Abstract

Astronomers have long been plagued by "seeing", the blurring of images of celestial objects by atmospheric turbulence. Adaptive optics is a developing technology that can in many cases largely eliminate this blurring, allowing ground-based optical and infrared telescope to approach the limit imposed by diffraction. The technology has already achieved some spectacular successes, such as the direct imaging of exoplanets and mapping of the orbital motion of stars in the galactic centre. The technology is in use at many major observatories, and will be central to the next generation of extremely-large telescopes. The talk will provide an

introduction to adaptive optics, and will illustrate the different types of AO that have been developed. He will also discuss some limitations and challenges of adaptive optics and prospects for the future.



*All are welcome ! Tea, coffee, biscuits will be served at 2:15 PM.*