



Seminar An Introduction to AGN Reverberation Mapping

Date: Wednesday, 24 July 2024

Time: 11h30 - 12h30

Venue: W213



Prof. William Welsh

Professor of Astronomy
San Diego State University

ABOUT THE SEMINAR

The nuclei of many galaxies harbor an exceedingly luminous, highly variable, compact source of energy.

These enigmatic active galactic nuclei (AGN) require exotic physics --- accretion onto a supermassive black hole.

The cores of AGN are generally too distant to spatially resolve, however we can deduce their structure through the reverberation mapping technique.

Using the time delay between the photoionizing continuum flux variations and their emission-line "echoes", we can infer the size and shape of the broad-line region surrounding the black hole. This enables us to measure the black hole mass and the flow of gas near the accretion disk.

ABOUT THE PRESENTER

William Welsh is Professor of Astronomy at San Diego State University. He earned

his PhD from the Ohio State University, followed by postdoctoral work at Keele University in England and at the University of Texas, Austin.

As an observational astronomer, he has worked on active galactic nuclei, accretion disks, compact-object binary stars, and exoplanets.

In 2008 he was selected to join NASA's *Kepler* Mission to work on transiting exoplanets, where he helped pioneer the field of "circumbinary planets" -- planets that orbit two stars.

For any enquiries, please contact:

Mr P Shanika

Email: pshanika@unam.na

Tel: 061 206 4590