

# Seminar

Friday, 19<sup>th</sup> March 2010

11 am - Room 701

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## ***Gravitational microlensing and plasma wakefield acceleration***

The process of gravitational microlensing enables astronomical measurements to be made with modest telescopes that are not possible using conventional astronomical techniques. Stars may be resolved with resolutions greatly exceeding the resolution of the Hubble Space Telescope, extra-solar planets may be detected orbiting stars as far away as the Galactic centre, and isolated black holes may be detected. Examples of these applications will be briefly described.

The process of plasma wakefield acceleration offers the prospect of carrying out new experiments in particle physics at very high energies on the table-top with modest equipment. Particles may be accelerated thousands of times more rapidly in simple lithium-filled cells than is achieved in present-day particle accelerators. Examples of possible applications of the technique will be briefly described.

*All Welcome*

### Contact Details

For further information phone 364 2404, or visit our website: [www.phys.canterbury.ac.nz](http://www.phys.canterbury.ac.nz)