Announcement of a lecture:

"To Mars and Beyond: Plasma Thrusting into the Future"

by **Professor Rod Boswell,**

Space Plasma & Plasma Processing, RSPhySE, ANU

Abstract:

The main force driving humanity is imagination and the final frontier to explore is deep space. It is now not a question of "if" we go to Mars and beyond, it is a matter of when and how. And, of course, how to get back! The main problem to solve is propulsion which breaks down into two topics; the first is the power supply and the second is the propellant. The most likely scenario would be to launch the component parts of the Mars ship into an earth holding orbit using chemical rockets, much like the fabrication of the International Space Station. For the long run to Mars, electrical propulsion using plasma thrusters will be required and these will be powered by nuclear-thermal units. The basic concepts behind plasma thrusters will be outlined in this talk and the possibility of Australian collaboration with the USA and Europe will be discussed.

at **7:30pm** on **Monday December 9th 2002**
in the **Kerr Grant lecture theatre**,
Physics building, University of Adelaide

presented jointly by

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Australian Institute of Physics (SA branch)

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All interested groups welcome