## Announcing a Free Public Lecture presented by the



## **Australian Institute of Physics - SA Branch**

http://www.physics.adelaide.edu.au/aip-sa

at 7:30 pm, Wednesday July 14th 1999

in Union Hall at the University of Adelaide

"Wormholes, Warp Drive, and Negative Energy"

by Prof. Larry H. Ford,

Department of Physics, Tufts University, Medford, Massachusetts, U.S.A.

## **Abstract:**

In recent years, it has been realised that Einstein's general theory of relativity appears to allow some bizarre possibilities. These include "wormholes", which would act as tunnels to otherwise distant parts of the universe, and "warp drive" spacetimes, in which faster-than-light travel seems to become possible. Either of these might also become a "time machine", allowing travel into the past or the future. All of these strange effects require "negative energy". This lecture will discuss some of the fundamental physics involved, and address the question; What are the limits of behaviour allowed by the known laws of physics?