

## Andrew W. Woods

**BP Professor, Head of the BP Institute at Cambridge University  
Fellow Professor at St John's College.**

Professor Woods research is focused on the mathematical and physical modelling of different flow processes, especially natural geological flows above and below the Earth's surface. His work combines simplified analytical models of complex flow processes with experimental analogue models to explore a range of physical flow phenomena.

He has published over 150 papers in international peer reviewed journals including work on the dynamics of explosive volcanic systems: both subsurface and atmospheric processes associated with this volcanic activity; the geothermal systems, especially superheated systems, in which there is continual water-vapour phase change, and fluid-mineral dissolution; the natural ventilation flows in buildings, work which has recently led to the energy saving e-stack system, as well as new strategies to combine thermal mass with natural ventilation to achieve both comfort and energy efficiency and finally models of oil-water and gas flows in porous rocks and problems associated with residual oil recovery and carbon sequestration dynamics.

For this Andrew Woods has been awarded the 1997 the Marcello Carapezza Prize and the Italgas Prize, and in 2002 the Wager Medal.