



The Royal Society of New South Wales

Southern Highlands Branch 17th October 2013 Lecture



Professor Peter Robinson BSc, PhD.

Professor in the School of Physics, University of Sydney.

Deputy Director of the Brain Dynamics Center at Westmead Millennium Institute.

Professor Robinson has a wide range of interests in the area of complex systems, brain dynamics, sleep modelling, computational neurosciences, biological physics, plasma and space physics. He has developed and tested quantitative models of brain dynamics underlying brain activity in normal sleep and wake states, epilepsy and Parkinson's disease.

His model of sleep-wake dynamics reproduces numerous results on normal and abnormal physiological conditions, fatigue, shift work, jet lag, drug effects, predicting improved productivity.

In 2012 he won the NSW Science and Engineering Award and his work has led to numerous awards. Including the Australian Academy of Science Pewsey Medal and Bede Morris Fellowship, the Royal Societies Eureka Prize for interdisciplinary Research and Edward David Medal, and the Australian Institute of Physics's Walter Boas Medal

He works closely with Westmead Hospital Brain Dynamic Center, the Woodcock Institute leaders in breathing and sleep disorders as well as the Black Dog Institute on mental disease and with overseas institutions including with NASA on the current STEREO space mission

Topic: The Dynamic Brain

This talk will outline how new insights into the operation of the brain can be obtained by applying ideas from physics in tandem with ones from biological sciences. He will talk about how we can understand both phenomena as diverse as epilepsy, Parkinson's, sleep, and brain imaging from this perspective. This gives new insights into the networks that exist in the brain and how they come together to underpin brain functions and consciousness.

DATE: Thursday 17th October 2013 **TIME:** 6.30 PM

VENUE: Performing Arts Centre. Chevalier College Bowral
[Enter off Charlotte St.](#) Doors open 6 pm.

PRICES: Lecture only: Non-members \$10 (RS Members \$5) only students are free.
Following the lecture, there will be a dinner open to members and non-members at BRIARS [BURRADOO](#) -Booking for dinner by Monday 14th
Any other queries please contact Hub 0411192917