



**Joint Lecture of
Australian Institute of Physics, The Royal
Society of New South Wales & Royal
Australian Chemical Institute**

“Alice and Bob in Wonderland”

Tibor G Molnar

Department of Philosophy, University of Sydney

Tuesday 13th November 2018 @ 6.30PM

University of New South Wales, Room G59/60 Old Main Building

Summary of talk:

Like Lewis Carroll’s *Wonderland*, our own ‘real’ world appears to be filled with endless surprises. Wondrous, mysterious, seemingly contradictory affairs await us at every turn. Might we, too, be wandering around down a rabbit-hole? With ever-more-powerful instruments, we peer further and further into the unknown. What we find is mostly novel, unexpected, surprising. This is what makes Science so interesting – and so exciting – especially in the fields of astronomy, cosmology and quantum physics. It is also what makes Science difficult. While technologically challenging, performing experiments and making observations is the easy part of scientific research. Describing our observations is even easier: a flash here; a vibration there; and so on. The hard part is *interpreting* what we see – ‘*making sense*’ of the patterns, correlations, invariances and regularities apparent in the data. Not only is ‘making sense’ hard; it is, strictly speaking, not even *scientific* – observations/experiments don’t come with instructions for how to make sense of them. Rather, ‘making sense’ is a task for *metaphysics* – something which scientists, and especially physicists, tend to eschew with a passion! Absent metaphysics, the physicists’ tool-of-choice is the so-called “Language of Science”: mathematics. Produce the correct mathematical formulation, they say, and all is explained! Well, not so. Mathematics is a powerful tool, but it is not at all suited to the task of ‘making sense’. Mathematics can *describe* patterns and correlations, but it cannot tell us what they *mean*. Mathematics can describe relations *between* observations, but it cannot determine what those observations are *of*. We all expect – nay, insist – that Science help us ‘*make sense*’ of the world; an expectation that contemporary physics is finding increasingly difficult to meet. (There is abundant evidence that even the theorists themselves do not understand their latest theories.) In this presentation, Tibor Molnar explores this problem of ‘making sense’, and suggests that a little *metaphysics* – so-called “Analytic Philosophy” – might actually help to achieve it.



Brief Biography of the Speaker:

Tibor Molnar studied Chemical Engineering at UNSW in the 1960s, but then forged a career in IT and business. Retired in 2003, he now pursues a wide range of interests: from physics and neuroscience to AI and philosophy. An Honorary Associate of the Department of Philosophy, University of Sydney, Tibor teaches Philosophy and Science at the university's Centre for Continuing Education and the WEA. A book is also on the way. For Tibor, the pursuit of understanding is the most rewarding of human endeavours, and his enthusiasm for Science in all its forms is well reflected in his presentation style.



Detailed Schedule for Tuesday, 13th November 2018:

- 5.30-6.00 pm **REFRESHMENTS, UNSW Room G59/60 Old Main Building**
- 6.30-7.30 pm **LECTURE by Tibor Molnar**
- 8.00 pm **ANNUAL DINNER with the Speaker at Giovanna Restaurant, 285 Anzac Parade, Kingsford.**

E-mail Dr Fred Osman (fosman@trinity.nsw.edu.au) if you will be able to join us for dinner.

Parking:

UNSW, located in the eastern suburbs, is just minutes away from the city and is easily accessible from Central Station and other major transportation hubs located throughout Sydney. If driving, enter through Gate 14, Barker St. Park in multi-level parking station.

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