

The Bristol Scientific Club Programme of Meetings for 2023 -2024

Please see <https://bristolscientificclub.org/programme/> for updates

(1) Saturday, 7 October 2023

Guest Speaker: Dr Zoe Leinhardt: “[Provisional Title – Formation of Planets]”

Abstract – TBA

Dr Zoë Leinhardt is a computational astrophysicist who joined Bristol University in 2010. Currently Associate Professor in the School of Physics and an STFC Advanced Fellow in the Astrophysics Group, Zoë was formerly at Cambridge University, and prior to that, Harvard, and the universities of Maryland and Washington.

Amongst the many accolades and grants she has been selected for, Zoë was awarded the American Association of University Women Ph.D. Award in 2005.

(2) Friday, 17 November 2023

Speaker: Dr John Manley: “The Chemistry of Wine: From Vanilla & Oak to Malolactic Fermentation via Black Pepper, Wildfires and Marzipan.”

Wines are endlessly fascinating liquids. Their aromas and tastes span the whole spectrum from lychee to lavender, green pepper, leather, blackberry, grapefruit, lime, saffron, butter, almonds, ... However wine is something that is made simply from grapes fermented with yeasts and aged from month to decades in wood, steel, glass, ceramic or concrete. These aromas, tastes and all the other mysteries and curiosities of wines can be explained intriguingly and elegantly by looking at the Chemistry that underlies them. There is a nice symmetry here: explaining the aromas, tastes, colour, history and character of wines through Chemistry also gives an appreciation and understanding of that Chemistry. In this talk we will look at five topics with wines that illustrate these topics.

John Manley came to Bristol to read Chemistry. This was followed by a PhD in Theoretical Chemistry (Spin-Coupled Valence Bond Theory). During post-doctoral positions he moved to Artificial Intelligence with Professor Christopher Longuet-Higgins FRS, himself a former Theoretical Chemist. After 28 years at Hewlett-Packard’s European Research Labs, where his groups were involved in large- and massive-scale systems research, he retired as Laboratory Director of Cloud Computing. He was a Trustee of the University of Bristol for nine years, serving also as the Chair of the University IT Committee. He is a Visiting Professor at the University of the West of England, Bristol. He is a Trustee of the Bristol Collegiate Research Society. In 2020 he was High Sheriff of the County of City of Bristol – following this year he created AskingBristol, which is exploring how to “level-up” the Third Sector in this country based on cities and regions.

(3) Saturday, 17 February 2024

Speaker: Dr Mike Carter: “[Provisional Title – Paediatric Epilepsy Surgery].”

Abstract - TBA

Mike Carter is a consultant neurosurgeon with a specific interest in children’s epilepsy and is also the clinical lead for the south west paediatric epilepsy surgery service. He has been at Bristol Royal Hospital for Children since 2014.

(4) Friday, 15 March 2024

Speaker: Professor Ken Nakayama: “[Provisional Title – Psychophysical Aspects of Vision] “.

How do we see? What is it about the ever changing structure of light impinging on our mobile eyes that enables us to pick up information about the environment around us? What is it about our brain and its neural activity allows us to see so much and so effortlessly? How is it that we can control our eyes and bodies to seek out information and to act in the physical world? These are just some of the large questions that drive researchers, including myself, to study vision. We find it a fascinating topic because it seems both so accessible and yet so elusive. Vision is immediate and obvious, so much so that it seems not to require any explanation. Yet, if we think of how an imaginary robot might simulate a human or how neural circuits might mediate conscious visual perception, we come to realize how deep the gulf is between what we know about the brain and the everyday facts about visual perception.

Recently, I have worked on the representation of visual surfaces, the deployment of visual attention, and the role of attention in initiating eye movements. Most recently, I have become interested in the perception and recognition of faces. I am also interested in using visual psychophysical tests to assess neurological and psychiatric disorders. In the future, I hope that the study of faces will help us understand social perception and cognition, illuminating how we represent other humans at a non-verbal level.

Ken Nakayama, formerly Edgar Pierce Professor of Psychology at Harvard University, is currently Emeritus Professor in the Department of Psychology at Harvard University and Adjunct Professor in the Department of Psychology at the University of California, Berkeley.