

First Year in Maths (NSW) End of Year Event

UTS Thursday, 13th December. CB04.05.430
Hosted by the School of Mathematical and Physical Sciences, UTS

Welcome to teachers of first year Uni maths and stats, also high school teachers of maths.

Program

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| 9am | Arrival, registration |
| 9.10-9.15 | Welcome: Professor Chris Poulton, Discipline Leader, Mathematical Sciences |
| 9.15-10.00 | Keynote: Professor Lance Leslie |

“Why Study Statistics in an Era of Big Data and AI?”

I gained my PhD in Applied Mathematics from Monash University and have since worked in mathematics departments and research institutes including CSIRO, UNSW, and the University of Oklahoma. I joined UTS in July 2017. My research and teaching interests have used applied mathematics and statistics to study many aspects of the geosciences, including big data (e.g. data retrieval, analysis and assimilation), theoretical studies, and computational modelling from severe storms to climate models. Over the past decade or so, I have focused heavily on artificial intelligence techniques (e.g., machine learning); these rely even more profoundly on a sound knowledge of statistics. My research applications include air pollution and water quality in urban environments, agriculture in rural environments, weather and storms coastal and open ocean regions, local to global weather and climate scales, and the many possible climate change impacts. I have been an expert witness in numerous legal cases involving severe weather events. This talk will emphasize the important and growing opportunities for employment for those who have a deep knowledge of statistics and related skills, to encourage more students to consider this field of study.

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| 10.00-10.30 | Talk 1 <i>An Introductory course in Statistics for First Year Engineering and Science Undergraduates</i> Jason Stanley |
| 10.30-11.00 | Morning tea |
| 11.00-11.20 | Talk 2 <i>Using narrative in the teaching of mathematics to undergraduate science students</i> Paul Hernandez Martinez and Nathan Clisby |
| 11.20-11.40 | Talk 3 <i>Whiteboard workshops at UTS</i> Murray Elder |
| 11.40-12noon | Talk 4 <i>Providing actionable personal feedback to students in large first year classes</i> Jurgen Schulte |
| 12 noon – 1pm | Lunch |
| 1pm-1.30 | Talk 5 <i>Improvements to Mastery Learning Assessment</i> Dani Solina, Greg Cave, Mary Coupland |
| 1.30-2pm | Talk 6 <i>New Foundation Mathematics: challenges and observations</i> Julia Memar |
| 2pm-3pm | Choice: (a) Talk 7. <i>Using R tools for Introductory Statistics</i> Arthur Hung |
| | Choice: (b) Two or three short presentations |
| 3pm-3.10pm | Please return to CB04.05.430 Close, evaluations, planning for 2019. |

Registration details coming soon, (via the First Year in Maths Network). <https://fyimaths.org.au/>

Meanwhile please contact mary.coupland@uts.edu.au if you have any queries.