

ANZMAG NEWS - APRIL 2025

By Oliver A.H. Jones (RMIT University - oliver.jones@rmit.edu.au)

Dear all, Welcome to April 2025 edition of ANZMAG. I hope you have all had a great month and that you enjoy the newsletter. As usual, please feel free to send feedback and/or suggestions for anything you want to see in future editions.

ANZMAG TUTORIAL LECTURES

Prof Gottfried Otting at ANU kindly reminded me that the ANZMAG website (<https://anzmag.com.au/lecture-events/>) hosts many excellent tutorial lectures. These are excellent teaching resources and free to access. Please feel free to share the link.

CONFERENCES

- The 18th International Conference on Magnetic Resonance Microscopy (ICMRM) will be held in Würzburg (Germany) August 17-21 - <https://icrmr.physik.uni-wuerzburg.de>
 - The Alpine Conference on Magnetic Resonance in Solids will be held in Chamonix (France) September 14-18 - <https://alpine-conference.org>
 - SMASH 2025 will be held in Porto (Portugal) September 21-24 - <https://smashnmr.org>
 - For the EPR people out there, the 10th EFEPR Summer School will be held in my home city of Manchester (UK) August 31 to September 6 - <https://www.chemistry.manchester.ac.uk/epr/connect/events/>
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JOBS AND FELLOWSHIPS

- The Bio21 at the University of Melbourne is looking for a Research Assistant in Microbiome and Metabolomics. Closing date **7th May** - <https://jobs.unimelb.edu.au/caw/en/job/920055/research-assistant-analytical-microbiomemetabolomics>
 - The University of Melbourne is looking for an Associate Lecturer in Biology. Closing date 23rd May
<https://jobs.unimelb.edu.au/en/job/920044/associate-lecturer-in-biology>
 - The University of Queensland is looking for a Director for the Queensland Brain Institute. The closing date is 19th May. See <https://www.nature.com/naturecareers/job/12838867/director-queensland-brain-institute/> for details.
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GRANTS AND AWARDS

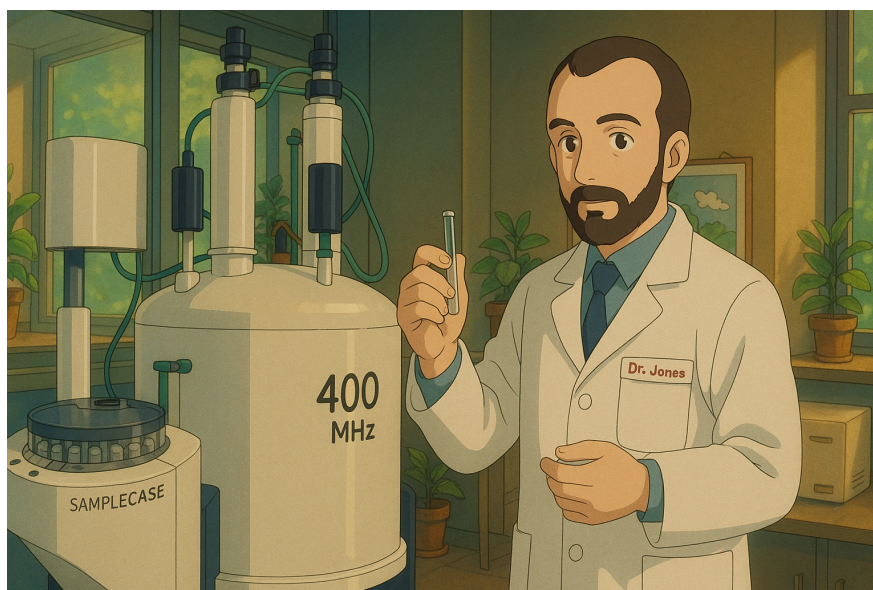
- **The National Measurement Institute Awards** are open for applications. These recognise achievements at all levels and promote the value of measurement science to society. Full details at <https://www.industry.gov.au/national-measurement-institute/about-us/annual-measurement-awards> Applications are now open and will close 5pm AEST on Tuesday **20th May**.
 - The **Royal Australian Chemical Institute National Awards** are open annually from 1st April to **30th June**. Applications are now being accepted. See <https://www.raci.org.au/events-and-awards/awards/national-awards> for details.
 - The **Australian Financial Review Higher Education Awards** are designed to highlight the tremendous contribution that the Higher Education sector makes to Australian prosperity and quality of life. Entries close 22nd May. See - <https://live.afr.com/higheredawards/>
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PAPER OF THE MONTH

I have to confess that I picked this month's paper of the month partly based on the title – which is “Teacups, a Python Package for the Simulation of Time-Resolved EPR Spectra of Spin-Polarized Multi-Spin Systems” by Quintes et al. (2025). It is an EPR paper on the topic of spin-polarised magnetic systems. These are generated by the interaction of photoactive molecules with light and play a key role in various scientific applications. Including things like OLEDs and organic photovoltaics. They are also important intermediates in biological processes, including photosynthesis. The authors are using transient continuous-wave electron paramagnetic resonance (trEPR) spectroscopy to study the temporal evolution of nonequilibrium spin states, which contain valuable information on any photoinduced dynamic processes occurring in such systems. For the analysis of the recorded trEPR data, simulations are essential. While the simulation of static trEPR spectra is supported well by tools like EasySpin, the simulation of time-resolved trEPR data is less developed. So, in this paper, the authors introduce ‘Teacups’, a new freely available and well-documented Python-based routine for simulating the temporal evolution of trepr spectra. The internal dynamics of different spin-polarised systems can be analysed, enhancing mechanistic understanding. In this manuscript, the authors detail the theoretical background and provide a description of the features and setup of the software and provide a step-by-step example for data analysis. You can see more at <https://pubs.acs.org/doi/10.1021/acs.jpca.5c01512>

STUDIO GHIBLI NMR

You may have seen a recent trend for using Chatgpt to turn photos into [Studio Ghibli images](#). I thought I would give it a try with an image from the RMIT NMR lab.



STORIES FROM THE WEB

- <https://www.gruise.com/products/resonance> - Resonance is an advanced simulation and control software for enhancing the performance of magnetic resonance technologies such as EPR, as well as MRI and NMR.
- <https://www.wattagnet.com/poultry-future/poultry-tech-summit-news/article/15744525/mri-may-help-egg-producers-with-inoxo-sexing-phenotyping> - New MRI tech technology that uses AI may assist egg producers in identifying gender and other phenotypic attributes of developing embryos.
- <https://www.bruker.com/en/landingpages/bbio/1-3-ghz-nmr-spectrometer.html> - Bruker Announces 1.3 GHz High-Resolution NMR System. Get writing those LIEF grants ;-)