

ANZMAG NEWS – July 2020

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Dear all,

Welcome to the July 2020 edition of ANZMAG News. I hope you are all well?

EDUCATION/MEETINGS

Viktor Vegh and Shona Osborn at UQ have setup an [Anomalous Relaxation and Diffusion Study group](#) with recordings available online. People are welcome to join. See <http://cai.uq.edu.au/webinars> for full details. Thanks to Viktor and Shona for this excellent idea.

The [NMR online seminar series](#) have a number of upcoming seminars that may be of interest. See <https://sites.google.com/view/nmr-seminar-series/home?authuser=0>

Bruker have an online seminar on [Diffusion MR: Basics and Applications](#) on the 15th September. See <https://www.bruker.com/events/webinars/diffusion-mr-basics-and-applications.html>

The [Australian and New Zealand Metabolomics Network](#) have a host of webinars online at <https://sites.google.com/site/anzmn2/news-events> - Includes one from the National Phenome Centre.

The [16th Annual International Conference of the Metabolomics Society](#) was scheduled to be held in Shanghai, China in July 2020. Due to COVID-19 concerns, the in-person meeting has been cancelled for 2020 and a virtual meeting will take place instead. Check <http://metabolomics2020.org> for details.

AINSE Ltd., with support from ANSTO, are hosting their [fourth educational school](#) for first-year female students, with an emphasis on Women in STEM and their career opportunities within nuclear science and engineering. AINSE offers scholarships to each of its member universities to enable a nominated first-year female student to attend the annual WISE School, held as an entirely-online event in December 2020. See <https://www.ainse.edu.au/wise/> for details.

PAPER OF THE MONTH

This month's paper of the month is on EPR. The title is "[Optimizing the transformation of HYSORE data using the maximum entropy algorithm](#)" and it's by Alina Motygullina, Mehdi Mobli, and Jeffrey Harmer. The paper describes the application of non-uniform sampling to EPR data, more specifically, hyperfine sublevel correlation (HYSORE) experiments. I know I am oversimplifying it as it is a very clever approach. You can read more about it at <https://www.sciencedirect.com/science/article/abs/pii/S1090780719300254>

INTERVIEW WITH AD BAX

The American Institute of Physics Oral History Interviews offer unique insights into the lives, works, and personalities of modern scientists. A recent one is with a giant of NMR - Professor Ad Bax. It is a really interesting read. See <https://www.aip.org/history-programs/niels-bohr-library/oral-histories/44554> for the details.

GRANTS

The **Harold & Cora Brennan Benevolent Trust equipment grants** provide funding (\$10,000-\$40,000) towards innovative equipment and instruments for the purpose of medical research. See <https://www.eqt.com.au/philanthropy/grant-funding/folder-medical-grants/harold-and-cora-brennen-benevolent-trust>

Tour de Cure Research Grants fund cancer research, support and prevention projects. See <https://tourdecure.com.au/grants/grants-hub/>

The **2021 Diabetes Australia Research Program Grant Round** is now open for applications and will close Friday, 25th September. See <https://www.diabetesaustralia.com.au/program-management>

Round 10 of the CRC-P program with the Department of Industry, Energy and Resources is now open and closes on 1 October 2020 - <https://www.business.gov.au/Grants-and-Programs/Cooperative-Research-Centres-Projects-CRCP-Grants>

AUSTRALIAN HONOURS AND AWARDS

Last week I was asked to be a referee for someone who has been nominated for a significant award in the Australian Honours and Awards system. It struck me that there are usually a few scientists that are honours etc year in the honours system (including Prof Frances Separovic AO) but it would be good to get more. Anyone can nominate for this at via an online form

at <https://www.gg.gov.au/australian-honours-and-awards/nominate-someone-award> so if you know anyone worthy now it a good time to nominate (NB I don't mean me, I mean senior scientists who have done a lot for science and society, particularly from underrepresented groups).

QUENCH

Have you ever seen a magnet quench? If not you might be interested in this movie of a 600 MHz #NMR magnet quench at Bio21. See <https://www.youtube.com/watch?v=XjrG9iQFsdA> The video comes from Professor Frances Separovic and could be useful for teaching as well as general interest. Before anyone asks the console went some time ago and magnet was a few decades past its use by date and was being decommissioned. The surrounding magnets are fine. (NB: I can't open this on Firefox for some reason but it works fine on Safari and Edge).

STORIES FROM THE WEB

- <https://phys.org/news/2020-06-single-spin-electron-paramagnetic-resonance-spectrum.html>
Cool work on a high-resolution paramagnetic resonance detection method based on the diamond nitrogen-vacancy (NV) quantum sensor

- <https://www.itnonline.com/content/subtle-medical-awarded-phase-ii-funding-16-million-sbir-grant-safer-mri-exams>

This article is on innovative artificial intelligence (AI)-powered software to make MRI exams safer.

- <https://www.news-medical.net/whitepaper/20200807/Tackling-New-Psychoactive-Substances-with-NMR-Technology.aspx>

This link is a story on tackling new psychoactive substances with NMR Technology. We've been working on something similar in my group.