Minutes of the 2022 AGM of the Engineering, Physical and Material Sciences Section of the Royal Microscopical Society which was held on Thursday 29 September 2022 during the Microscopy: Advances, Innovation and Impact 2022 Meeting, held at The Royal Society of Chemistry, Burlington House, Piccadilly, London, W1J 0BA.

Members present in-person: Roland Kröger FRMS (EPMS Chair), Grace Burke FRMS (RMS President), Michelle Peckham FRMS (RMS Executive Honorary Secretary), Rik Brydon FRMS (RMS Honorary Secretary Sciences (Physical Science) until 29 September 2022), Andy Brown FRMS (RMS Honorary Secretary Sciences (Physical Science) from 29 September 2022), Maddy Parsons FRMS (RMS Honorary Secretary Sciences (Life Science)), Kerry Thompson (RMS Honorary Secretary (Education)), Rod Shipley (RMS Honorary Treasurer), Debbie Stokes FRMS (Past RMS International Secretary), Alex Ball FRMS, Paul Balas, Asa Barber, Beatrice Bottura, Ed Boyes Hon FRMS, Barry Carter Hon FRMS, Helen Corry, Stephen Couzens FRMS, Stephen Cross, Siân Cullie FRMS, Rocco D’Antuono, Derek Davies FRMS, Emmanuel Derivery, Deepak Dinker, Elizabeth Duke, Matthew Francis FRMS, Pratibha Gai FRS Hon FRMS, Yanping Guo FRMS, Daniel Haspel FRMS, Pippa Hawes FRMS, Ben Haylar, Ting-Luen Ho, Karen Hogg FRMS, John Hutchison Hon FRMS, Martin Jones, Rob Kesseler FRMS, Oleg Kolosov FRMS, Vladimir Korolokov, Donald MacLaren FRMS, Judith Mantell, Gail McConnell FRMS, Greg McMahon FRMS, Steve Metcalfe FRMS, Jean-Yves Mignier FRMS, Katherine Paine, Periklis Pantazis, Julia Parker, Alex Payne-Dwyer, Michael Redd, Liam Rooney FRMS, Hamed Safaie, Rebecca Saleeb FRMS, Paul Spellward, Paul Verkade FRMS, Claire Wells FRMS, Steven West FRMS, David Williams Hon FRMS, Christopher Wood FRMS, Marcus Yio, Tim Young and Allison Winton (RMS Chief Executive) and the following members of RMS staff: Adam Clay, Georgina Fletcher, Victoria Masters, Jade Sturdy and Kate Wooding.

Members present virtually: Lynne Joyce FRMS (Past RMS Honorary Treasurer), Jacqueline Bond FRMS, Stan Botchway FRMS, Kris Bramley, Charles Clifford FRMS, Joel Cohen, Lucy Collinson FRMS, Héctor Corte-León, Alistair Curd FRMS, Mingdong Dong, Nadine Field, Patricia Goggin FRMS, Paul Gunning FRMS, Tim Hawkins FRMS, Brian Hayes FRMS, Louise Hughes FRMS, Georgeanna Kawaley FRMS, Satyam Ladva, Leandro Lemgruber Soares, Katherine MacArthur, Francis Morrissey, Kathy Newell, Laurie Palasse, Chris Parmenter FRMS, Dana Perry, Basant Puri FRMS, Thomas Slater FRMS, Natasha Stephen, Kialon Voitchovsky FRMS, Christa Walther FRMS, Thomas Walther FRMS, Joanna Wells, Xiangli Zhong FRMS and the following members of RMS staff: Nick Cameron, Owen Morton and Lucy Ridler.

1. Apologies for Absence
   Apologies for absence had been received from: Susan Anderson FRMS (RMS Vice President), Peter O’Toole FRMS (RMS Vice President), Paul Gunning FRMS, Aubrey Lambert, James Perkins FRMS, Brian Rodriguez, Peter Sainsbury FRMS and Steve Thomas FRMS.

2. Minutes of the 2021 Annual General Meeting
   The minutes were approved as a true and accurate record of the meeting.

3. Matters Arising
   There were no matters arising.

4. Report from Section Chair
   The Chair gave the following report:
   “Our committee represents the broad and interdisciplinary engineering, physical and materials science community, who use advanced microscopy and spectroscopy-based techniques to address engineering and physical science problems. We engage in a wide range of EPMS activities such as workshops, seminars and conference sessions, concentrating on scientific themes that aim to improve our understanding of materials, machines and engineering systems including energy and energy storage, biomaterials, structural/geological materials, advanced 3D manufacture, devices, and surface engineering.

   2021/22 was still strongly impacted by the pandemic and restricted many activities to online events, the EPMS section have been extremely engaged in adapting to this situation. I wish to highlight the particularly strong engagement of EPMS committee members e.g., in organising interdisciplinary mmc2023 sessions and workshops as well as stand-alone workshops, a lecture series and outreach activities for school children, to promote the use of microscopy and spectroscopy in a wide range of areas.

   Past Activities:
   Cutting across disciplinary boundaries Duncan Muir, Nyree Manoukian and Roland Kröger organised a virtual meeting on Microscopy and Microanalysis in Geological and Archaeological Materials which took place in
November 2021, with 135 registered participants the meeting was extremely well received and resulted in the organisation of an Archaeology focused session for mmc2023.

As a now regular and highly successful event a focused ion beam workshop was organized by Xiangli Zhong in Manchester including FIB based structuring and sample preparation, which ran on 27 October 2021 and had more than 200 registered participants. Xiangli will organise a FIB session and workshop for mmc2023.

The International Microscopy Focus Lecture Series (IMLS), with Grace Burke and Roland Kröger as RMS representatives on the Organisation Committee, along with members of the Canadian and Israeli microscopy societies, has got off to a spectacular start. This webinar-based lecture series reflects the pioneering work of world leading scientists working with microscopy as their core tool. Each scientific presentation is accompanied by an interview providing intriguing insights into the lives and work of these eminent contributors to the progress of microscopy. So far, the IMLS has featured Nobel Laureates Dan Shechtman and Joachim Frank, as well as Ray Egerton, Sir Peter Hirsch, Jennifer Lippincott-Schwartz, Benny Geiger, Ricardo Henriques and Philip Batson. Between 150-300 registered participants echo the strong resonance of this event series within the microscopy community.

Anna Baldycheva was strongly engaged in new RMS outreach activities. This included an Ancient Egypt Edutainment Event for 60 children from low-income household in Southampton, supported by the City Council and the University of Southampton, where children were learning about the history and science of ancient Egypt through various activities. A Channukah Edutainment Event also took place for 60 children supported by PJ Library. This included traditional celebration elements under a microscope. Children were learning how to use optical and digital microscopes and explored grains of sand, oils, leaves, and insects.

Current Activities:
Mmc2023 - EPMS members are making an impact on RMS activities by being involved in organising a range of cross-disciplinary mmc2023 sessions including: a session on Multiscale and Correlative Microscopy being organised by Dogan Ozkaya and Julia Parker, a FIB session being organised by Xiangli Zhong, and an X-ray techniques session being organised by Julia Parker jointly with Liz Duke from the EM committee. Alison Parkin (Green Chemistry, U York) has been invited by the EPMS section to co-organise a session on Sustainability and Carbon Net Zero. Natalie Reznikov, a former member of the EPMS Section, will be awarded the RMS Award for Innovation in Applied Microscopy for Engineering, Physical and Materials Sciences and Xiangli Zhong will be awarded the Vice President’s Award for her contributions to the wider microscopy community at mmc2023.

Focused Interest Groups - members of the EPMS committee are active in the X-ray Focused Interest Group (FIG) created in 2021 and led by Liz Duke. The FIG has regularly met in 2022 to discuss promotion of X-ray based characterisation techniques and to organise events to engage the RMS community in using these methods across the disciplines and complimenting tools like electron and light microscopy.

Beverley Inkson is engaged in an effort to establish an Ion Beam Microscopy FIG. Activities of this FIG include creating a roadmap, surveying the UK community to find out what is needed and looking at potential links with other FIG’s.

Faraday Discussion - Fabio Nudelman, who has also joined the Board of the Journal of Microscopy, and Roland Kröger were successful in proposing a Faraday Discussion as a joint event with the Royal Society of Chemistry on Multiscale-Imaging of Biominalisation. This will take place in Edinburgh in 2025 and will be a cross-disciplinary event including characterisation techniques bridging the length-scales. It will address key questions regarding the mechanism of different biomimetic systems relevant for a variety of fields such as biomedicine, geochemistry and archaeology.

Outreach - with Anna Baldycheva the Section has a highly active member in outreach activities, which is so important to promote the RMS and inspire the next generation’s curiosity in microscopy.

I would like to thank Owen Green who is stepping down as a long serving member of the EPMS committee for his outstanding contributions to the RMS in particular his great engagement in the areas of geological materials and outreach.
Finally, I would like to express my gratitude for the engagement of our committee members and the outstanding RMS staff who have shown such an impressive level of dedication, creativity, and positivity throughout the past year.”

5. **Election of Officers**

There being no other nominations, the following Officers were duly elected:

- **Chair:** Roland Kröger, University of York
- **Deputy-Chair:** Anna Baldycheva, University of Exeter

6. **Election of Ordinary Members (8)**

There being no other nominations, the following Ordinary Members were duly elected:

- Trevor Almeida, University of Glasgow
- Dan Haspel, Oxford Instruments
- Nyree Manoukian, University of Oxford
- Igor Meglinski, Aston University
- Fabio Nudelman, University of Edinburgh
- Julia Parker, Diamond Light Source
- Manfred Schuster, Johnson Matthey
- Jane Woolrich, Rolls Royce

In addition to the nominated Committee Members, Beverley Inkson, Duncan Muir and Xiangli Zhong have been co-opted onto the Committee. Marcus Yio has been co-opted as the Early Career Representative.

Mr Paul Gunning and Dr Dogan Ozkaya will be invited to attend meetings to represent the RMS Council.

7. **Any Other Business**

There was no other business.

*Non-members present in-person: Bryony Carter, Michele Conroy, Zoe Couzens, Sohini Kar-Narayan, Margie Williams and Heath Young

*Non-members present virtually: Jemima Burden, Laura Cooper, Paul Edwards, Irantzu Llarena, Penghan Lu, Jacob Pattem, Jeremy Rees and Joanne Robson*