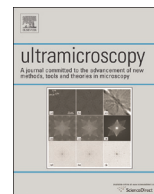




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Editorial

Introduction to a Special Issue on Frontiers of Aberration Corrected Electron Microscopy dedicated to Harald Rose on the occasion of his 80th Birthday [☆]



This special issue of Ultramicroscopy is both a Festschrift in honour of Harald Rose on the occasion of his 80th birthday and contains invited papers presented at PICO 2015 – the Third Conference on Frontiers of Aberration Corrected Electron Microscopy.

It brings together original research and review articles written by colleagues who have enjoyed the privilege of working together with Harald Rose or have benefited from his achievements in both theoretical and applied electron optics research. It also contains the contents of the majority of the keynote presentations given during the PICO 2015 conference held in Kasteel Vaalsbroek between 19 and 23 April 2015. This meeting was organised by the Ernst Ruska-Centre in Jülich, which is pleased to look back on a prolific collaboration on the correction of spherical and chromatic aberration in electron microscopy with Harald Rose for over a quarter of a century.

PICO 2015 attracted approximately 150 participants from academia, industry and national laboratories and received major sponsorship from the German Research Foundation, FEI Company, JEOL (Europe) BV, the Jülich Research Centre, CEOS GmbH, Nion Company, Gatan Inc., DENSSolutions, E.A. Fischione Inc. and HREM Research Inc., or their German representatives. The conference organisation was underpinned by meticulous work carried out by Ingrid Rische-Radloff and Gabriele Waßenhoven, who deserve very special thanks.

This special issue begins with an overview by Knut Urban highlighting the career and major scientific achievements of Harald Rose. Subsequent manuscripts are arranged alphabetically in order of the first author's surname. Each manuscript has been peer-reviewed by two or more referees, to whom the guest editors are obliged for their efficient and speedy work.

The pioneering research carried out by Harald Rose is recognised in the form of both review articles and original manuscripts, which describe research activities in electron optics, electron microscopy, electron spectroscopy and electron holography at the highest resolution. The manuscripts provide a cross-section of state-of-the-art measurement techniques making use of aberration corrected instrumentation that can now be applied to a broad range of challenging problems in condensed matter physics, materials science and soft matter research, thereby demonstrating the importance and relevance of Harald Rose's achievements in theoretical electron optics.

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[☆]Compilation of research and review papers dedicated to Harald Rose on the occasion of his 80th birthday

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