



DEUTSCHE GESELLSCHAFT FÜR  
ELEKTRONENMIKROSKOPIE

(eingetragener Verein)

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## Press Release

24 October 2022

### Harald Rose Distinguished Lecture 2023 awarded to Prof. Dr. Phil E. Batson

The German Society for Electron Microscopy (Deutsche Gesellschaft für Elektronenmikroskopie, DGE) awards the internationally renowned Harald Rose Distinguished Lecture to **Prof. Dr. Phil E. Batson** (Departments of Physics and Astronomy, Materials Science and Engineering, Rutgers University) for his outstanding scientific achievements in the field of electron optics, in particular electron microscopy. The prize will be awarded at the Microscopy Conference MC2023 in Darmstadt on March 2<sup>nd</sup>, 2023.

**Phil E. Batson** is internationally recognized for his electron optical research using analytical and ultra-high-resolution scanning transmission electron. He contributed to major improvements of the mechanics and electronics of the high-resolution VG-STEM, the theoretical understanding of interaction processes of electrons with objects, and pushed the limits of resolution and detectability of weak signals in EELS. His developments extended instrumental limits by incorporating an electron monochromator and aberration correction in the STEM, demonstrating a 60 meV energy resolution and a sub-Angstrom beam size at 120 kV for the first time. He explored coupled surface plasmon scattering in metal nanoparticle systems, the electronic behavior of spatially confined systems, such as Si/Si-Ge quantum wells, revealed new understanding of core-exciton behavior using EELS, and has strongly contributed to its present importance.

The **Harald Rose Distinguished Lecture** is awarded every two years by the DGE for pioneering work in the field of particle optics in electron microscopy to celebrate the ground-breaking work of Prof. Dr. Harald Rose. Corrected Electron Optical Systems (CEOS) GmbH sponsors the Harald Rose Distinguished Lecture.

The President of the German Society for Electron Microscopy (DGE)

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