

Launching Structural Dynamics

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Since the birth of femtosecond optical spectroscopy at the end of the 1980s, the awareness was high that in order to be able to follow the actual atomic-level structural changes of a system over time, femtosecond spectroscopy needed to be pushed into the short-wavelength range, i.e., x-rays or electrons. Huge efforts were deployed in this respect since the early 2000s, using table-top sources of ultrashort x-ray to extreme Ultraviolet (EUV) pulses^{1–5} or synchrotron-based ones.^{6–13} A turning point came with the launch of the first hard x-ray free electron laser (XFEL), the Linear Coherent Light Source (LCLS) in 2010 in Stanford (USA),¹⁴ followed by the hard x-ray SPring-8 Angstrom Compact free-electron LAsER (SACLA)¹⁵ in 2011 in Japan and the extreme-UV Free Electron laser Radiation for Multidisciplinary Investigations (FERMI) in 2012 in Trieste (Italy).¹⁶ The latter remains the sole machine operating in a seeded mode, i.e., a true free electron laser. In late 2017, three new hard and soft X-ray machines came into operation: the European XFEL in Hamburg,¹⁷ the Swiss Free electron laser (SwissFEL)^{18,19} at the Paul-Scherer-Institut in Villigen, and the Pohang Accelerator Laboratory X-ray Free-Electron Laser (PAL-XFEL) in South Korea.²⁰ All these developments led to a flurry of scientific breakthroughs in chemistry, biology, and condensed matter physics,^{21–26} which are still on-going. In parallel, major achievements in time-resolved structural studies were taking place using electron-based methods, such as electron scattering and diffraction, electron microscopy, and electron energy loss spectroscopy (EELS).^{27–29}

With this background in mind, in 2013 when the late Judith Flippen-Anderson,³⁰ who served as the American Crystallographic Association (ACA) representative on the American Institute of Physics (AIP) Publishing Board of Managers, contacted me to ask if I would consider leading a new journal to fit this research area, I immediately accepted. The journal would be called *Structural Dynamics* (SDY) and would be co-published by the ACA and AIP Publishing. My spontaneous positive response was further strengthened by the latitude AIP Publishing gave me to help develop the editorial strategy of the journal and to choose the associate editors and editorial advisory board.

I took office as Editor-in-Chief (EiC) in January 2014 after I had assembled a board of associate editors consisting of the top scientists in the field, keeping a balance between areas of research and between experiment and theory. They did a superb job, and I am very grateful to them for their constant support and commitment. I also assembled a prestigious advisory editorial board consisting of 26 members, also chosen among the top names in the field of structural dynamics, taken in its broadest sense. I thank them warmly for their constant support and their help to represent the journal in the community. I would particularly like to thank John Helliwell and the late Ahmed Zewail^{31–34} who actively supported the journal in its effort to gather a community of authors.

Despite the initial momentum to start a journal in the field of ultrafast structural dynamics, the editors encountered some challenges since SDY was yet to be an established, open access journal in the community. However, through the years, the editorial and publishing staff worked in collaboration to actively promote the journal through various strategic efforts including attending key conferences, organizing community-driven special topics, and targeted commissioning. I am very thankful to the editors and AIP Publishing staff for all their efforts. As a result, the journal has successfully published 12 Special Issues on a variety of topics, including an issue in tribute to Ahmed H. Zewail, issues dedicated to the *International Conference on Ultrafast Structural Dynamics* and, since 2017, the Transactions from the *American Crystallographic Association's Annual Meeting*. The journal received its first Journal Impact Factor (JIF) of 3.667 in 2015 and has held steady through 2020 with a JIF of 3.217, which places SDY in the top quartile ranking of the Physics, Atomic, Molecular, and Chemical category by Clarivate Analytics. Interest and readership have continued to grow as evidenced by the increase in downloads and citations. Year-to-date, the journal has already received over 130 000 downloads, its highest annual total yet, and the number of citations has increased 600% since 2016.

I am proud that the journal has now evolved into an established forum for the community of ultrafast EUV to x-ray and electron scientists. After seven years as Editor-in-Chief, I am delighted to pass the

torch to my colleague George Philips who will take on the reins of Editor-in-Chief in January 2021. George has been an associate editor since SDY was first launched and has been an intricate member of the editorial team working through challenges and celebrating successes. I have every confidence that George will be a strong leader for SDY bringing in new editorial ideas and strategies to lead the journal for many years to come.

One of the greatest rewards I had as the Editor-in-Chief was the collaboration and outstanding support of the staff at AIP Publishing and the ACA. Without them, none of this would have been possible. Their commitment and their flexibility to solve problems have been crucial to this adventure. I thank them wholeheartedly, and I will miss them all. Finally, I would once again like to thank the associate editors and the members of the advisory board for their many suggestions on how to improve the journal and their constant help and support. Last but not least, a warm thank you to all the authors for the wonderful papers and exciting results they published in *Structural Dynamics*. They made the journal.

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