Dear ICS members,

It is my great pleasure to announce that the 2021 ICS Prize of Excellence will be awarded to Prof. Leeor Kronik of the Department of Molecular Chemistry and Materials Science, Weizmann Institute of Science, for his pioneering contributions to the development of density functional theory (DFT) and its application to a wide range of contemporary issues in chemistry and materials science.

Leeor Kronik was born in 1970 in Rehovot, Israel. He obtained his B.Sc. in Electrical Engineering (1991) from Tel Aviv University and Ph.D. in Physical Electronics (1996) under the supervision of Prof. Yoram Shapira. Following postdoctoral research at the University of Minnesota with Prof. James R. Chelikowsky (1999-2002), he joined the Department of Materials and Interfaces at the Weizmann Institute. In 2012 he became a Full Professor, and since 2019, he has held the Aryeh and Mintzi Katzman Professorial Chair. For nine years (2012-2021), he served as the Department Chair and is presently the director of the Tom and Mary Beck Center for Advanced and Intelligent Materials.

Through the development of novel orbital-dependent density functional approaches, Prof. Kronik’s research has extended the predictive reach of DFT into a various electron and optical spectroscopy scenarios previously believed to be outside its realm, including the quantitative prediction of fundamental and optical gaps, as well as charge transfer excitations, in both molecular and solid-state systems. He has also contributed significantly to the development of methods for large-scale DFT calculations based on real-space approaches. Using these and other tools, in recent years, Leeor has contributed significantly to our understanding of a broad range of topics, including the electronic structure of metal-organic complexes, dynamic disorder processes in halide perovskites, structure and properties of biogenic and bio-inspired molecular crystals, collective effects at molecular electronic and spintronic junctions, and more. With over 250 publications in high-profile journals, including Science, Nature Comm., Nature Materials, Adv. Mater., J. Phys. Chem. Lett., Nano Lett., Angew. Chem., Phys. Rev. B, J. Phys. Chem., JACS, and PNAS, Kronik was cited over 21,000 times with an h-index of 74.

Prof. Kronik was a member of the Young Israel Academy and is a Fellow of the American Physical Society. He has received the Krill Prize of the Wolf Foundation (2006), the ICS Prize for the Outstanding Young Scientist (2010), the Israel Vacuum Society Award (2018), and the Helen and Martin Kimmel award (2021).

The award ceremony will take place on February 22, 2022, during the 86th ICS Annual Meeting.

Congratulations to Leeor for his achievements!

Ehud Keinan