**Sang-Wook Cheong**

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**Professional Activities**

Sang-Wook Cheong studied mathematics at Seoul National University and physics at the University of California, Los Angeles. He acquired his Ph. D. from UCLA in 1989 while most of his research was performed at Los Alamos National Laboratory. He became a postdoctoral fellow at Bell Laboratories, AT&T (1989-1991) and then was appointed a Member of Technical Staff. In 1997 he became a tenured full professor at Rutgers University, while maintaining part-time employment at Bell Laboratories until 2001. He became a distinguished professor at Rutgers in 2001, and in 2005 became the founding director of the Rutgers Center for Emergent Materials (RCEM). In 2011 he was appointed Board of Governors Professor at Rutgers. In 2017 he was appointed Henry Rutgers Professor, and became the founding director of the center for Quantum Materials Synthesis (cQMS), supported by Gordon & Betty Moore Foundation and Rutgers.

Cheong’s research activities focus on studies of mesoscopic self-organization in solids, including the nanoscale charge stripe formation, mesoscopic electronic phase separation in mixed-valent transition metal oxides, and the formation of topological vortex domains in improper ferroelectrics. The formation and topology of these self-organized textures can be synergistically relevant to other areas of science such as mathematics (graph theory) and even cosmology. He has also made significant contributions to the research field of enhanced functionalities in complex materials originating from collective correlations such as colossal magnetoresistive and colossal magnetoelectric effects.

Materials synthesized in the Cheong's lab have been widely utilized for domestic as well as international collaborative research, resulting nearly 800 publications. For the last decade, he has held a number of visiting scholar positions in various institutes (especially in Asia), including Oxford U (England), U of Groningen (the Netherlands), U of Tokyo (Japan), Postech (S. Korea), National Synchrotron Radiation Research Center (Taiwan), Institutes of Metal Research (Shenyang, China), and Nanjing University (China). Through these visiting positions, he has made significant contributions toward enhancing complex materials research activities in these countries. Since 1998, he has been mentoring one to two high school students every summer through the Partners in Science Program, organized by the Liberty Science Center. He was elected fellow of the American Physical Society in 2000, and listed as the 13th most cited physicist for the previous decade in 2003. In 2007 he was awarded the Ho-am Prize in Science (sponsored by Samsung), and the James C. McGroddy Prize of the APS in 2010. He served as a Divisional Associated Editor for Physical Review Letters for 2008-2011, and is currently serving as an Editor of Chief for npj Quantum Materials.

**Publication Metrics**

791 Publications, >46,500 Citations, six papers cited more than 1000 times, and *h*-index=102