2020 Kirkman Medal awarded to Chong Shangguan

Chong Shangguan has made deep contributions to extremal combinatorics and combinatorial coding theory. His notable research achievements include an original and elegant proof regarding the combinatorial list-decodability of Reed-Solomon codes, significant progress on two well-known and difficult conjectures on the Turan number of sparse hypergraphs, and the resolution of several conjectures and open problems on perfect hash and separating hash families.

Dr. Shangguan's research has resulted in 16 published papers, most of which appeared in the very best journals or conference proceedings in the fields of combinatorics, coding theory, and theoretical computer science. A striking feature of his research is the broad range from theory to applications, where tools from extremal combinatorics, additive combinatorics, probabilistic combinatorics, and the polynomial method are involved.