Dr. Yehuda Braiman is a Distinguished Scientist at Computer Science and Mathematics Division, Oak Ridge National Laboratory and Joint Faculty Professor at Department of Mechanical, Aerospace, and Biomedical Engineering, University of Tennessee. Dr. Braiman is a member of the Center for Engineering Science Advanced Research, and the Complex Systems Group in the Computer Science and Mathematics Division. Dr. Braiman received his PhD at the Tel Aviv University in 1993. He joined Oak Ridge National Laboratory in 1998.

Dr. Braiman's research interests is interdisciplinary and span multiple fields including nonlinear dynamics and chaos, lasers and optics, friction and fracture, Josephson junctions, and computing. He co-authored 51 journal papers, 17 refereed conference papers, and 8 book chapters, edited 1 book, and co-authored 4 patents. His papers published in the fields of dynamical systems and chaos, control of chaos, dynamics, synchronization and coherent beam combining of high power laser arrays, mechanisms and control of friction at the nanoscale, nanoscale fracture propagation in metallic glasses, arrays of superconducting Josephson junctions, accelerator physics, and cryogenic memory cell design for future computing. Some of Dr. Braiman's research accomplishments include (1) discovery of chaos in Josephson junctions (with E. Ben Jacob and Y. Imry); (2) method to control chaos (with I. Goldhirsch, Physical Review Letters article cited more than 400 times according to the WEB of Science); and (3) method to control spatiotemporal chaos by introducing spatial disorder (article highlighted on the cover page of Nature and in Nature News & Views, (*Taming Spatiotempoal Chaos with Disorder*, with W. L. Ditto and J. F. Lindner, article cited more than 150 times according to the WEB of Science). Most recently, Dr. Braiman in collaboration with Niketh Nair, Jake Rezac, Roland Glowinski, and Neena Imam proposed design for cryogenic memory cell. In the proposed design all the basic memory operations are implemented on the same circuit and it has a potential to substantially reduce memory access time dissipation energy, and reduce memory cell size. The proposed design is based on the principles of the nonlinear dynamics.

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