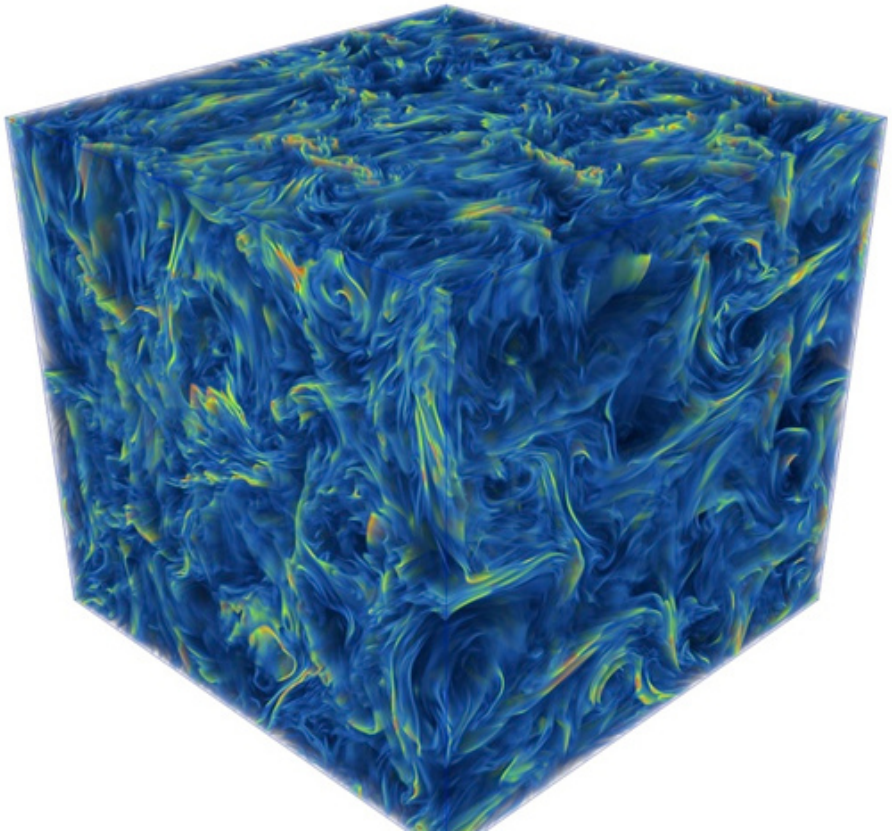
Picture of the Week: Plasma cubed

August 3, 2015



Drawing on expertise from astrophysics, applied mathematics, fluid mechanics, data management, and computer science, a interdisciplinary multi-institution research team including Los Alamos scientists have discovered that turbulence may be key to solving the mystery of "fast magnetic reconnection" that has puzzled physicists for decades. To test their theory, scientists conducted state-of-the-art computer simulations, such as the one pictured above, using novel database methods combined with high-performance computing techniques. Research into the mystery of fast magnetic reconnection could lead to better understanding of solar flares and ejections of material from the Sun's corona. Such powerful space weather could endanger astronauts, disrupt communications satellites, and lead to massive blackouts of electrical power grids.

Read more: Turbulence may be key to "fast magnetic reconnection" mystery