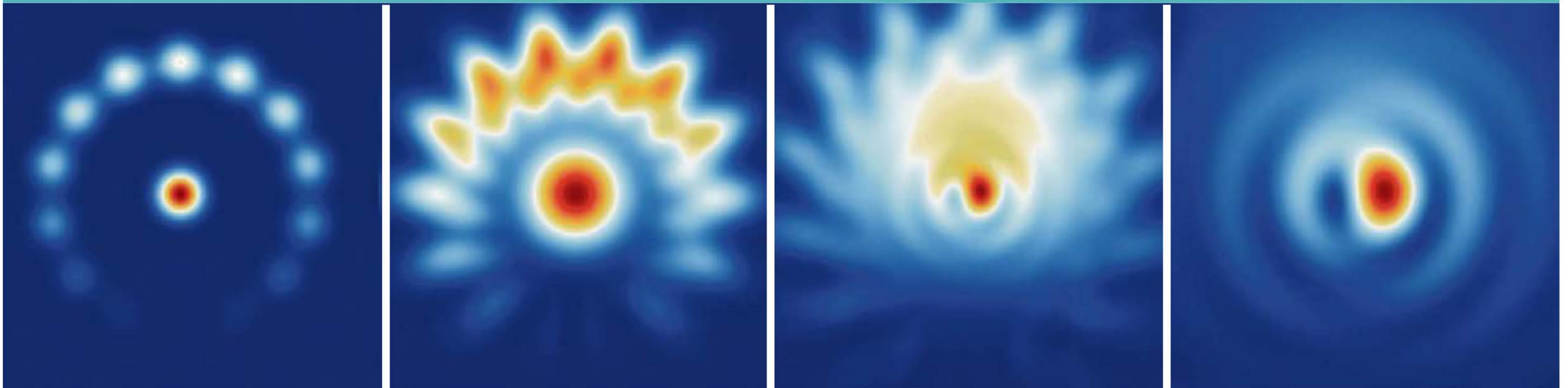


## Beautiful Science



These “flowering” patterns show a computer simulation of a cold atom system in action. As thousands of atoms are cooled to a temperature near absolute zero, they are shaped into a ring. The atoms are concentrated into a central pool and a corrugated ring around it. Still and rotating rings of these atoms can potentially encode the binary codes of ones and zeros that computers run on. This can unleash new quantum computing powers, the basis for a new generation of supercomputers. Over 15 thousandths of a second, the dense atom clouds (represented by the intensity of red) spread out into empty areas (in blue). The quantum state of the atoms interferes with this motion, like ripples on a lake. Researchers from the Centre for Quantum Technologies at the National University of Singapore created these simulation models and published their findings on Jan 30. PHOTO: PHYSICAL REVIEW A 97, 013633 (2018)