In the first decade of the millennium, rapid progress has transformed whole areas of research (see the Insights of the Decade section on page 1612). Meanwhile, the Breakthrough of the Year goes to the first mechanical devices to reach the quantum ground state, a feat achieved by physicists at the University of California, Santa Barbara (see the Breakthrough section on page 1604). Also see related online content at www.sciencemag.org/special/insights2010/.

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