

# ***PHYSICS TODAY***

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Quantum mechanics allows one to independently select both the initial and final states of a single system. Such pre-and postselection reveals novel effects that challenge our ideas about what time is and how it flows.  
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- 34 **The physics of boron nitride nanotubes.**  
As synthesis techniques mature, BN nanotubes are likely to be increasingly valuable in fundamental physics studies and find application in a variety of forms —from dyeable, neutron-absorbing fabrics to high-temperature catalysts and photovoltaic devices.  
*Marvin L. Cohen and Alex Zettl.*
- 39 **String theory and the real world.**  
Although string theory is formulated in 10 or 11 dimensions, specific string theory solutions make unambiguous, testable predictions about our four-dimensional universe.  
*Gordon Kane.*

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*Hough* (reviewed by *R. Musson*)... *The Life of Stars: The Controversial Inception and Emergence of the Theory of Stellar Structure*, *G. Shaviv* (reviewed by *R. Deupree*)... *The Logical Laep: Induction in Physics*, *D. Harriman* (reviewed by *U. Gerlach*)... New books.

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**COVER:**

According to string theory, what is normally regarded as a spacetime point in our four-dimensional world is actually a tiny, complicated, multidimensional space. Among the most studied of those are the 6D Calabi-Yau manifolds; shown here is a projection of one exemplar. The detailed properties of the complex invisible space determine the particles and forces we observe. For that reason and others, argues Gordon Kane in the article beginning on page 39, string theory is testable and predictive. (Drawing by Andrew J. Hanson, Indiana University.)