

spins (chiral spin liquids). Theoretical work on anyons, galvanized if not initiated by high-temperature superconductivity, has suggested new possibilities for magnetically ordered states in two-dimensional materials, and its potential is far from exhausted. I believe, for instance, that it allows a new quantitative approach to the classic problem of the superfluidity of liquid helium (in two dimensions) and suggests the existence of qualitatively new states of matter combining features of traditional superconductors and quantized Hall states.

Another example of important theoretical work inspired by high-temperature superconductivity not mentioned in the article is the prediction of qualitatively new features of vortex dynamics in these materials. Whereas in the old superconductors the vortices typically formed rigid lattices, in the new materials they can under certain circumstances form liquids or entangle into a highly viscous glass-like state. Understanding the dynamics of these vortices is crucial to many of the potential technological applications of the new materials.

Ordinarily scientists (certainly this one) are content to shrug off incomplete or superficial reports on research. However, some of us are especially sensitive at the moment because inadequate funding of basic materials research is making life difficult for many worthy colleagues. Basic research of any kind requires patience and sympathy. Progress is often fitful, and the value of a really new idea may take years to appreciate and may ultimately prove itself in totally unexpected ways. Inadequate funding of the "purest" of pure research (such as particle physics or cosmology) is a cultural tragedy and unworthy of a great and affluent nation. Inadequate funding of fundamental materials research is in addition foolish, even from the most hard-headed practical point of view, in the long run. I hope the rather flip treatment of an important subject in the article mentioned, which might tend to aggravate an already bad situation, will be repaired in the near future.

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Erratum: In the article "Exact solution of large asymmetric traveling salesman problems" by D. L. Miller and J. F. Pekny (15 Feb., p. 754), the first full paragraph on page 757 should have begun, "In order to determine whether G contains a Hamiltonian cycle, we use. . ." On page 758, the last sentence of the sixth paragraph should have read, "The Hamiltonian cycle algorithm quickly does the same enumeration by using a bipartite matching algorithm on the admissible graph."

Erratum: In Albert B. Sabin's letter "Viral etiology of AIDS and the Gallo probe" (3 Aug., p. 465), reference 1 on page 466 should have read, "F. Barré-Sinoussi *et al.*, *Science* 220, 868 (1983)."

Want not.



manheim
boehringer