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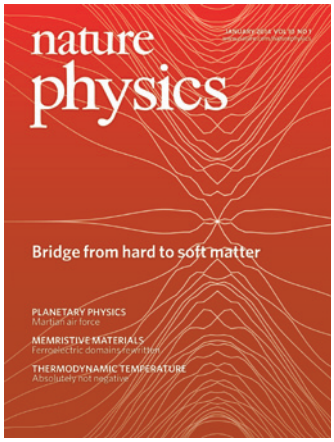
nature physics



COVER IMAGE

The mathematical connection between isostatic lattices — which are relevant for granular matter, glasses and other 'soft' systems — and topological quantum matter is as deep as it is unexpected.
Article p39

IMAGE: CHARLIE KANE

COVER DESIGN: ALLEN BEATTIE

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Thermodynamic temperature
Absolutely not negative
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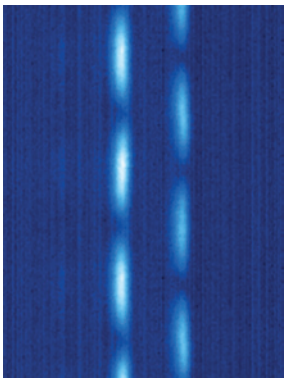
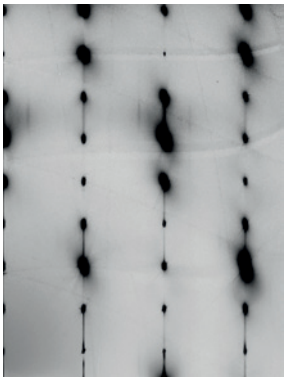


An electron and a hole trapped in the same quantum dot couple together to form an exciton. Conventionally the hole involved is a heavy hole. Light-hole excitons are now observed by applying elastic stress to initially unstrained gallium arsenide-based dots. The quasiparticles are identified by their optical emission signature, and could be used in future quantum technologies.
Article p46



Inelastic X-ray scattering studies of $YBa_2Cu_3O_{6.6}$ reveal strong electron–phonon coupling and an inhomogeneous state made up of charge-density-wave nanodomains, which may explain some anomalous properties of the pseudogap state.
Article p52

ARTICLES

FUTURES

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