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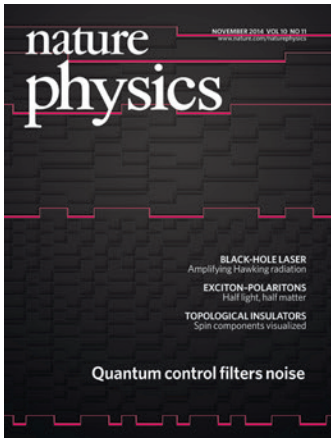

COVER IMAGE

Quantum technologies are extremely sensitive to environmental disturbance. Control techniques inspired by classical systems engineering allow selective filtering of the noise spectrum, suppressing time-varying noise over defined frequency bands.
Letter p825; News & Views p794

IMAGE: HARRISON BALL AND MICHAEL J. BIERCUK

COVER DESIGN: ALLEN BEATTIE

ON THE COVER

Black-hole laser
Amplifying Hawking radiation
Article p864; News & Views p793

Exciton–polaritons
Half light, half matter
Review Article p803

Topological insulators
Spin components visualized
Letter p815

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RESEARCH HIGHLIGHTS

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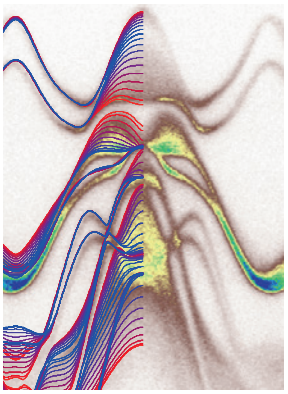
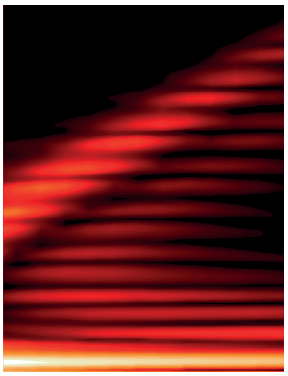
LETTERS



The coupling between spin, valley and layer degrees of freedom in transition-metal dichalcogenides is shown to give rise to spin-polarized electron states, providing opportunities to create and manipulate spin and valley polarizations in bulk solids.
Letter p835; News & Views p798



Electron scattering limits the optical excitations produced by metal-based lasers to femtosecond timescales. But sub-picosecond pulsing can be achieved in a plasmonic nanowire laser by operating near the surface plasmon frequency.
Article p870; News & Views p799

ARTICLES

FUTURES

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