**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

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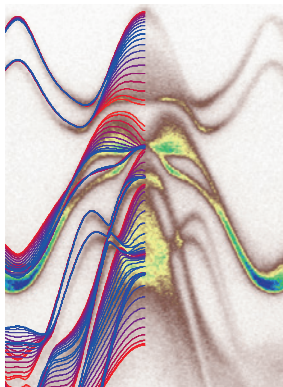
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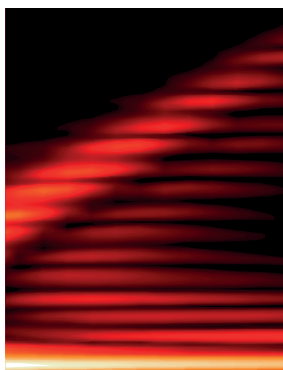
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The coupling between spin, valley and layer degrees of freedom in transition-metal dichalcogenides is shown to give rise to spin-polarized electron states, providing opportunities to create and manipulate spin and valley polarizations in bulk solids.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



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