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By engineering the electron wavefunction, it is possible to create Aharonov–Bohm-like phases and relativistic effects such as length contraction and time dilation in a non-relativistic setting and in the absence of electromagnetic fields. Article p261; News & Views p211

IMAGE: IDO KAMINER

COVER DESIGN: ALLEN BEATTIE

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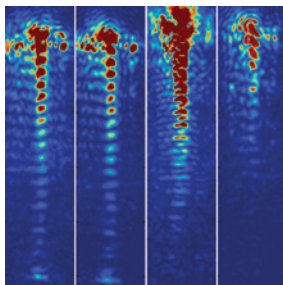
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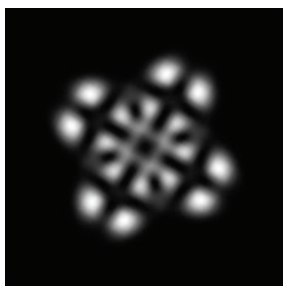
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Photonic crystal waveguides can control light propagation on subwavelength scales, but structural disorder typically causes scattering and broadening. It is now shown that disorder can enhance light collimation beyond conventional limits.
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