The success of machine-learning techniques in handling big data sets has now been exploited in the classification of condensed-matter phases and phase transitions.

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Controlled wave propagation in disordered media is a challenge because of scattering processes. Now it is shown that for speckled targets much larger than the wavelength, long-range correlations between the speckles enhance wave-propagation control.

Image: Chia Wei Hsu
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Experiments show how domain walls can act as reservoirs of exchange energy that can be used to controllably launch or detect spin waves in ferromagnetic nanowires.

Image: Younghee Lee (CUBE3D Graphic)
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