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## **【127】 Ferromagnetic quantum critical point protected by nonsymmorphic symmetry in a dense Kondo metal $\text{CeSi}_{1.97}$**

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Quantum critical points (QCPs) are windows to fundamental quantum mechanical phenomena associated with universal behaviour. Recently, antisymmetric spin-orbit coupling in noncentrosymmetric systems was suggested to protect ferromagnetic QCPs. A dense Kondo lattice  $\text{CeSi}_{2-x}$ , crystallising in a centrosymmetric structure, exhibits ferromagnetic order when Si is replaced with Ag. We report that the Ag-substitution to  $\text{CeSi}_{1.97}$  linearly suppresses the ferromagnetic order towards a QCP, accompanied by concurrent strange-metal behaviour. Herein, we suggest that, despite the centrosymmetric structure, spin-orbit coupling arising from the local noncentrosymmetric structure, in combination with nonsymmorphic symmetry, can protect ferromagnetic QCPs. Our findings offer a general guideline for discovering new ferromagnetic QCPs.

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