

Magnetic Weyl semimetal phase in a Kagomé crystal

D. F. Liu, A. J. Liang, E. K. Liu, Q. N. Xu, Y. W. Li, C. Chen, D. Pei, W. J. Shi, S. K. Mo, P. Dudin, T. Kim, C. Cacho, G. Li, Y. Sun, L. X. Yang, Z. K. Liu, S. S. P. Parkin, C. Felser and Y. L. Chen

Science **365** (6459), 1282-1285.
DOI: 10.1126/science.aav2873

Magnetic Weyl semimetals

Weyl semimetals (WSMs)—materials that host exotic quasiparticles called Weyl fermions—must break either spatial inversion or time-reversal symmetry. A number of WSMs that break inversion symmetry have been identified, but showing unambiguously that a material is a time-reversal-breaking WSM is tricky. Three groups now provide spectroscopic evidence for this latter state in magnetic materials (see the Perspective by da Silva Neto). Belopolski *et al.* probed the material Co_2MnGa using angle-resolved photoemission spectroscopy, revealing exotic drumhead surface states. Using the same technique, Liu *et al.* studied the material $\text{Co}_3\text{Sn}_2\text{S}_2$, which was complemented by the scanning tunneling spectroscopy measurements of Morali *et al.* These magnetic WSM states provide an ideal setting for exotic transport effects.

Science, this issue p. 1278, p. 1282, p. 1286; see also p. 1248

ARTICLE TOOLS

<http://science.sciencemag.org/content/365/6459/1282>

SUPPLEMENTARY MATERIALS

<http://science.sciencemag.org/content/suppl/2019/09/18/365.6459.1282.DC1>

RELATED CONTENT

<http://science.sciencemag.org/content/sci/365/6459/1248.full>
<http://science.sciencemag.org/content/sci/365/6459/1278.full>
<http://science.sciencemag.org/content/sci/365/6459/1286.full>

REFERENCES

This article cites 44 articles, 2 of which you can access for free
<http://science.sciencemag.org/content/365/6459/1282#BIBL>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. The title *Science* is a registered trademark of AAAS.

Copyright © 2019 The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works