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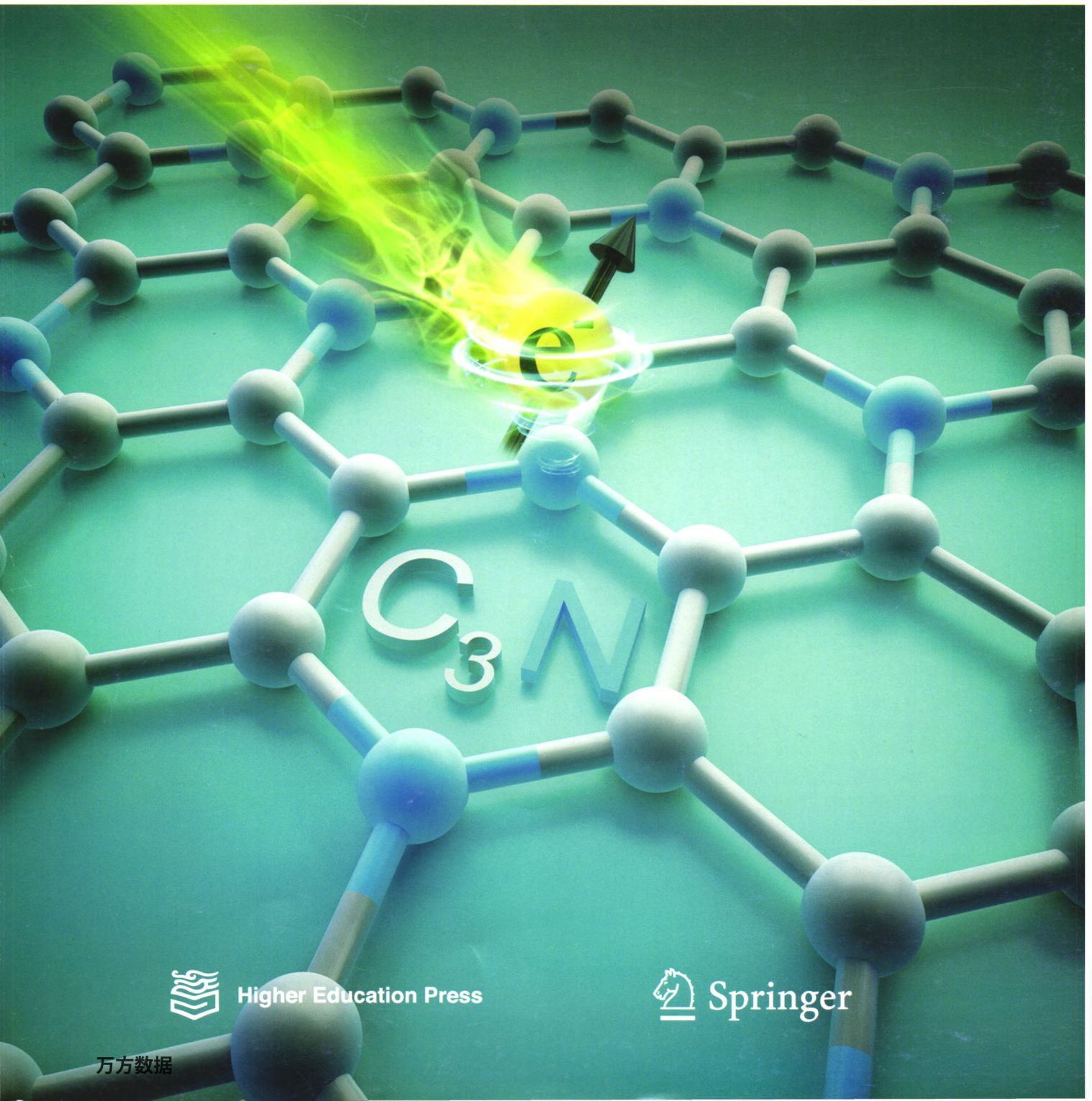

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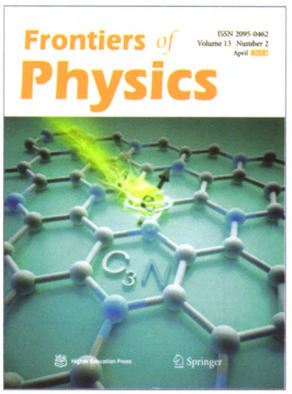

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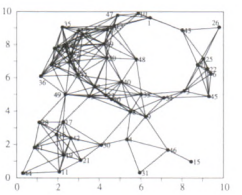
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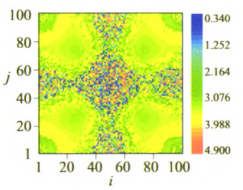

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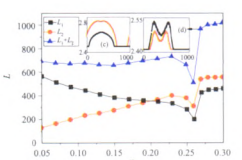
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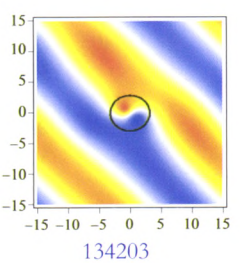
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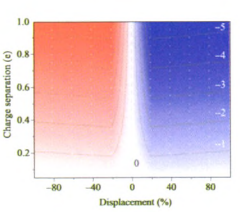

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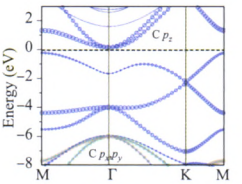

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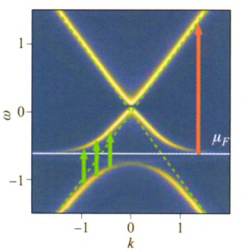

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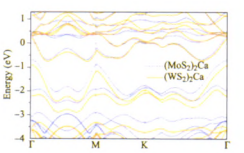

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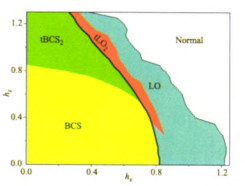

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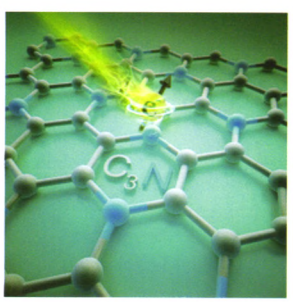

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The search for and study of exotic quantum states in novel low-dimensional quantum materials have triggered extensive research in recent years. In a recent paper, the authors proposed that the realization of ferromagnetism in the newly discovered two-dimensional quantum material C_3N under charge carrier injection, such as electric field gating or hydrogen doping. These theoretical findings not only demonstrate that the emergence of magnetism may stem from the itinerant electron mechanism rather than the effects of local magnetic impurities, but also open a new avenue to designing field-effect transistor devices for possible realization of an insulator-ferromagnetism transition by tuning an external electric field. For more details, please refer to the article "Exotic ferromagnetism in the two-dimensional quantum material C_3N" by Wen-Cheng Huang, Wei Li, and Xiaosong Liu, *Front. Phys.* 13(2), 137104 (2018). [Photo credits: Wei Li & Xiaosong Liu]

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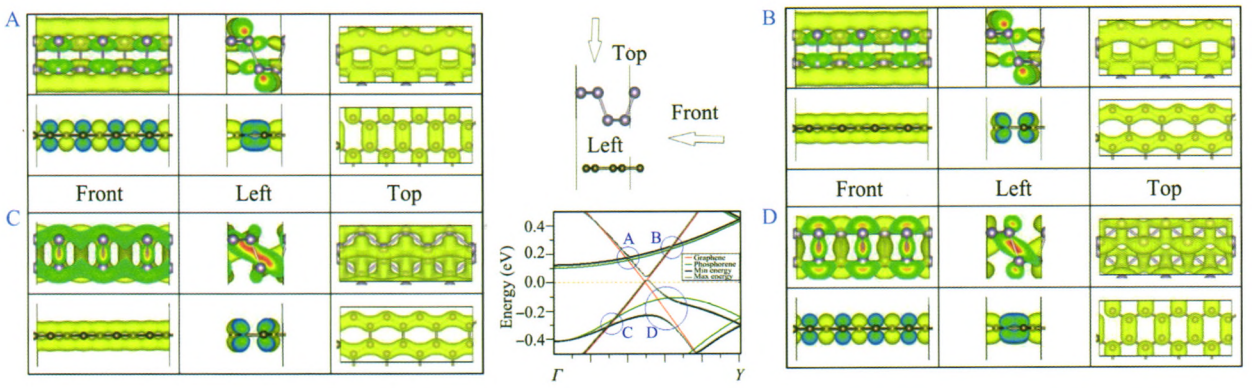

The calculated Bloch waves of each layer at four band-crossing *K* points. See: Xue-Rong Hu, Ji-Ming Zheng, and Zhao-Yu Ren, Strong interlayer coupling in phosphorene/graphene van der Waals heterostructure: A first-principles investigation, *Front. Phys*. 13(2), 137104 (2018).

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