Department of Physics

Superconductivity and High Performance Computing

My research interest mainly focus on the superconductivity. My group can implement computer programs and use high performance computer to do the numerical calculation, such as exact diagonalization, parallel computing, and so on. We have studied the iron-based superconductors and are carrying out the copper-based superconductors now..

Techniques used in study

Computer language: Fortran/Python/C++ Mainframe machine: Linux/shell script

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Background: PhD in Physics, University of Houston Texas, USA

Funding:

Ministry of Science and Technology National Taiwan Normal University



Space configuration in nematic state





Publications

- Hong-Yi Chen, Nematicity in Electron-doped iron-pnictide superconductors, "Superconductivity and Superfluidity," [Book] ISBN 978-1-78984-065-0 (2019).
- Chung-Pin Chou, Hong-Yi Chen*, C.S. Ting, The nematicity induced d -symmetry charge density wave in electron-doped iron-pnictide superconductors, Physica C 546, 61 (2018).



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