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Complexity and disequilibrium as telltales of superconductivity

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Highlights:

- 1) An $SU(2) \times SU(2)$ exactly solvable of superconductivity (SC) is analysed.
- 2) We provide a statistical treatment.
- 3) We focus on quantifiers like the statistical complexity C and the disequilibrium D .
- 4) C detects the SC phase transition by becoming maximal at the constant.
- 5) D becomes maximal at the SC state, indicative of maximum order.
- 6) High temperature SC is detected.
- 7) The temperature is shown to play an ordering role in some cases.

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