Automatic analysis and study of defects in materials

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Abstract

The computational study of materials has experienced big changes due to the emergence of high-throughput calculations, as well as development in algorithms for the automatic analysis of the results. In turn, these advances have deeply influenced condensed matter physics, making it much closer to materials science.

While there are robust pieces of software and algorithms based in statistical learning for the analysis of bulk and low-dimensional materials, there are few attempts to automatize the analysis of defects in materials. In this contribution we explain our approach to the automatization of the study of defects, based on the statistical recognition of patterns.

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Referencias

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