

Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Ab initio Studies of Filling-enforced Nodal Semimetals RU CHEN,
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NEATON, Lawrence Berkeley National Lab; University of California, Berkeley,
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— We present a new search criterion for nodal semimetals based on electron filling
and symmetries. With this new criterion, several material candidates are discovered
using ab initio calculations and experimentally characterized material databases.
We discuss specific material candidates, such as filling-enforced Dirac semimetals
and Dirac nodal-line semimetals.

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Date submitted: 11 Nov 2016

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