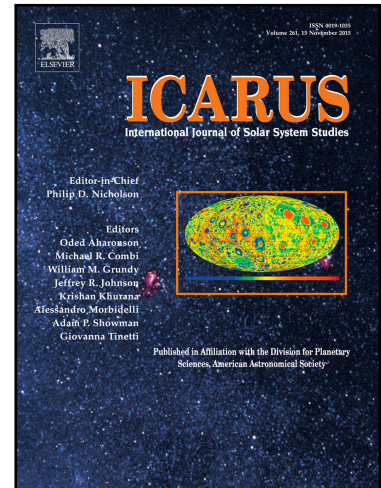


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Replication of the historic record of Martian global dust storm occurrence in an atmospheric general circulation model

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Highlights

- A Mars GCM with radiatively active dust and orbit-spin coupling has been developed
- We present a Monte Carlo analysis of MGCM outcomes from a 56-Mars-year simulation
- A random forcing hypothesis for GDS occurrence is rejected at the 99% level
- Results show strong agreement with Mars' historic record of global dust storms

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