## CURRICULUM VITAE: KYLE GWIRTZ

Ph.D. Candidate

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Scripps Institution of Oceanography,

La Jolla, California, 92037

**EDUCATION** 

Scripps Institution of Oceanography Geophysics In Progress Ph.D. M.S. University of Arizona Applied Mathematics 2019 University of Kansas Mathematics B.Sc. 2009

AWARDS

NASA Earth and Space Science Fellowship (NESSF)

2018-2021

**PUBLICATIONS** 

K. Gwirtz, M. Morzfeld, A. Fournier, G. Hulot, Can one use Earth?s magnetic axial dipole field intensity to predict reversals?, Geophysical Journal International, 225(1), 277-297 (2021).

M. Brio, J.G. Caputo, K. Gwirtz, J. Liu and A. Maimistov, Scattering of a short electromagnetic pulse from a Lorentz-Duffing film: theoretical and numerical analysis, Wave Motion, 89, 43-56 (2019).

RESEARCH EXPERIENCE

Summer 2018 Graduate Intern, NASA Goddard Space Flight Center

TALKS & PRESENTATIONS

SIAM-Computational Science and Engineering Spring 2021

Title of Talk: Geomagnetic data assimilation for decadal scale forecasts: lessons from a new

simplified model

SIAM-Mathematics of Planet Earth Summer 2020

Title of Talk: Data assimilation experiments with a reduced-order model of the geodynamo

Scripps Institution of Oceanography, Paleomagnetism Seminar Summer 2020

Title of Talk: Can one use Earth's magnetic axial dipole field intensity to predict reversals?

Summer 2019 International Union of Geodesy and Geophysics General Assembly

Title of Poster: Geomagnetic data assimilation: numerical experiments with a reduced-scale model

American Geophysical Union Fall 2018 Meeting Fall 2018

Title of Poster: Localization and bias correction in geomagnetic data assimilation: systematic

numerical experiments with reduced-scale models

Spring 2018 U2 can UQ, University of Arizona

Title of Talk: Geomagnetic data assimilation

Fall 2017 RTG workshop, University of Arizona

Title of Talk: Invariant densities for maps with noise

RTG workshop, University of Arizona Spring 2017

Title of Talk: Thin ferroelectric films