CURRICULUM VITAE: KYLE GWIRTZ

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EDUCATION

Scripps Institution of Oceanography	Earth Sciences	Ph.D.	2021
University of Arizona	Applied Mathematics	M.S.	2019
University of Kansas	Mathematics	M.A.	2012
University of Kansas	Mathematics	B.Sc.	2009

AWARDS

NASA Postdoctoral Fellowship (NPP) 2022-present
Student Author Award, Geophysical Journal International 2021
NASA Earth and Space Science Fellowship (NESSF) 2018-2021

PUBLICATIONS

K. Gwirtz, M. Morzfeld, W. Kuang, A. Tangborn, *A testbed for geomagnetic data assimilation*, Geophysical Journal International, 227(3), 2180-2203 (2021).

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).

EXPERIENCE

Postdoctoral Researcher, NASA Goddard Space Flight Center 2022-present
Graduate Research Assistant, Scripps Institution of Oceanography 2020-2021
Graduate Research Assistant, University of Arizona 2018-2020
Graduate Intern, NASA Goddard Space Flight Center Summer 2018
Graduate Teaching Assistant, University of Arizona 2016-2018

Semester	*Course*
Spring 2018	Math 120: Precalculus
Fall 2017	Math 263: Introduction to Statistics and Biostatistics
Spring 2017	Math 112: College Algebra
Fall 2016	Math 112: College Algebra

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

Data Driven Discovery Showcase, University of Arizona Spring 2021

Title of Talk: Investigating the predictability of Earth's magnetic field

SEDI Symposium — Fall 2020
Title of Poster: Can one use Earth's magnetic axial dipole field intensity to predict reversals?

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?

International Union of Geodesy and Geophysics General Assembly — Summer 2019
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

U2 can UQ, University of Arizona — Spring 2018
Title of Talk: Geomagnetic data assimilation

RTG workshop, University of Arizona — Fall 2017
Title of Talk: Invariant densities for maps with noise

RTG workshop, University of Arizona — Spring 2017
Title of Talk: Thin ferroelectric films