

**Fall 2023**

## **GEOL 492/692 Geodynamics Seminar**

### ***Catching up with Current Thinking about Earth's Magnetic Field***

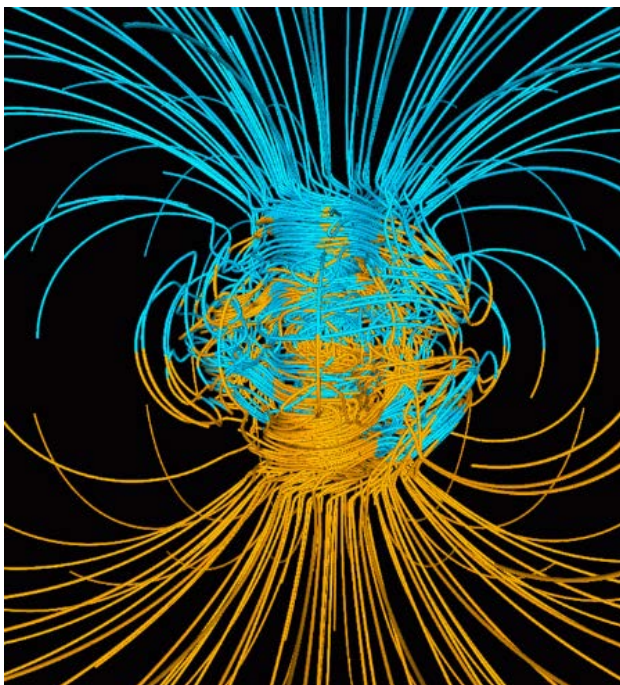
**Instructor:** Dr. Dennis Harry

*1 Credit*

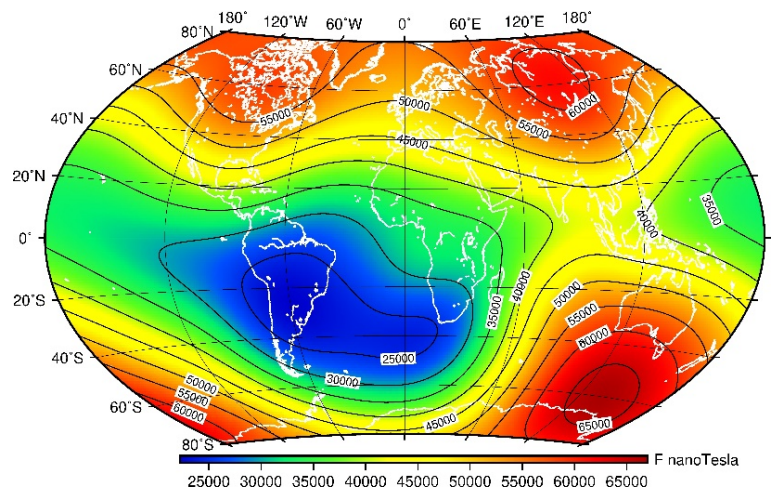
**Location and Time:** TBD

Scientists' understanding of the origin and behavior of Earth's magnetic field has advanced greatly in the past decade. This is partly due to greatly improved computational models, partly to advances in geomagnetic theory, partly due to our rapidly improving understanding of the nature of Earth's interior, and partly due to our steadily growing dataset of paleomagnetic observations.

This seminar class will combine readings from current literature with class discussion in order to gain a modern understanding of Earth's magnetic field, how it has evolved, through time, what observational and theoretical arguments bear on the problem, and what outstanding problems currently challenge the geomagnetic science community.



*Simulation of Earth's magnetic field. Recent papers suggest the magnetic field may be generated mostly in the upper few 100 km of*



*Earth's Total Magnetic Field. (British Geological Survey, <http://www.geomag.bgs.ac.uk/>)*

This seminar will meet once each week to discuss current papers from the science literature, which students will read prior to class. The class requires reading 1-2 journal articles per week. Grading is Pass/Fail based on preparedness and participation in class discussions. ***This is an interdisciplinary seminar intended for students interested in learning more about Earth's deep interior. Junior, Senior, and Graduate Geo students are welcome!***