

The Geodetic & Metrological Roots of C.S. Peirce's Pragmatism – Alisa Bokulich

Abstract:

Although Charles S. Peirce is widely recognized as a central figure in the history of philosophy, what is lesser known is that his primary profession was as a geodesist, who devoted his career to improving the precision and accuracy of surface measurements of Earth's gravity. Peirce joined the U.S. Coast & Geodetic Survey straight out of college and was actively involved in researching and writing on this topic up until his death. Peirce's work in geodesy was intimately intertwined with the development of metrology (the science of measurement), and Peirce contributed to its rise both within the U.S. and internationally. In this talk I will argue that Peirce's work in geodesy and metrology is a critical, but surprisingly underappreciated, source of influence on his pragmatic philosophy. In particular, I will examine the influence of this scientific work on his fallibilism (a term Peirce coined), error classification, dynamical view of accuracy, and social epistemology. I will conclude by drawing some lessons from Peirce's philosophy for thinking about science today.