Meeting: 1003, Atlanta, Georgia, SS 37A, AMS Special Session on In the Wake of Jacobi and Hamilton 200 Years Later, I

1003-01-969 **Craig Fraser*** (cfraser@chass.utoronto.ca), Inst. Hist. Phil. Sci. Tech., Victoria College, University of Toronto, Toronto, Ontario M4K 3A4, Canada. *The Concept of Variation in Jacobi's Writings on Analysis and Dynamics.* Preliminary report.

Jacobi's research in analytical dynamics in the 1830s and 1840s was closely linked to his work in the calculus of variations. The paper examines the basic concept of the variation as it was deployed by Jacobi in both dynamics and analysis, with emphasis on how he understand and used variations in his derivation of ordinary and partial differential equations. The paper will also consider Jacobi's theory in relation to contemporary work of Hamilton and to later work of other researchers. (Received October 01, 2004)