

Meeting: 1003, Atlanta, Georgia, SS 3A, AMS-MAA Special Session on History of Mathematics, I

1003-01-1119 **Ruediger Thiele*** (thieler@server3.medizin.uni-leipzig.de). *The Weierstrass-Schwarz Correspondence*. Preliminary report.

Correspondence between scholars is always of special interest to historians, not only because of the personal information it contains, but because it often deals with many technical topics before they are published. Letters provide fascinating insights into the origins of new ideas and their development; moreover, some topics remained unpublished. In the case of Karl Weierstrass, this is especially so because Weierstrass was very reluctant to publish anything. The correspondence between Weierstrass and his disciple, Hermann Amandus Schwarz, is preserved almost entirely in the Archives of the Berlin-Brandenburg Academy, but only parts have been published. This presentation will give a brief overview of the scientific part of the correspondence which runs from 1867 to 1893, most of which is devoted to function theory (more than two-thirds) and the calculus of variations (approximately one-third). Among topics dealt with: Weierstrass's discovery of a continuous but non-differentiable function, the approximation theorem for continuous functions, and proof of the isoperimetric property of the circle, and the calculus of variations. (Received October 04, 2004)