

1023-01-291

Laura E Turner* (laurat@sfu.ca), Department of Mathematics, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada, and **Thomas Archibald**. *The Mittag-Leffler Theorem: Interpretation and Reception of a Mathematical Result, 1876-1884*. Preliminary report.

Gösta Mittag-Leffler (1846–1927) studied as a “post-doctoral” student in Paris with C. Hermite and in Berlin with K. Weierstrass from 1873 to 1876. In 1876, Mittag-Leffler extended Weierstrass’ work on representation of entire functions and proved the theorem associated with his name that asserts the existence of a meromorphic function with prescribed poles and multiplicities. Alternative proofs were provided by Hermite and Weierstrass, and the early response to this work from the mathematics community was highly enthusiastic. Between 1876 and 1884 Mittag-Leffler sought to generalize his early results, and his desire to deal with infinite sets of singular points attracted him to Cantor’s work. His enthusiasm for Cantor’s results was unusual, and brought with it disapproval. Based on Mittag-Leffler’s correspondence with Cantor, Weierstrass, Kronecker, Poincaré and Hermite, we examine his results and their interpretation and reception. The paper provides a concrete case study of the role of major figures in the transition from a view of mathematics sometimes referred to as “formula-based”, to a more modern view in which abstract entities became widely accepted as valid, interesting objects of mathematical study. (Received September 03, 2006)