1056-M5-259 **James R Henderson*** (henderso@pitt.edu), 504 E. Main Street, Titusville, PA 16354. *What Is the Character of Mathematical Law?*

The proposition that mathematics may be treated as just another empirical science has its origin in the writings of John Stuart Mill and is still defended by some philosophers of mathematics to this day: Lakatos argues that, like those of the physical sciences, mathematical investigations are quasi-empirical in nature; Maddy has said that sometimes axiom adoption in set theory "has more in common with the natural scientist's hypothesis formation than the caricature of the mathematician writing down a few obvious truths;" Goodman has gone as far as to say that "mathematics is no more different from physics than physics is from biology." If one assumes Mill's position, which I will call "naturalized mathematics," it seems not unreasonable to use the extant literature on laws of nature as a starting point for an investigation into the nature of the laws of mathematics, though, of course, this is not the originally intended application. Versions of laws of the physical sciences include the regularity, necessitarian, universals, systems, anti-realist, and anti-reductionist accounts. This presentation will assume the naturalized-mathematical position and consider which account best fits the laws of mathematics. (Received August 21, 2009)