1056-N5-1809   **Donald W. DeLand*** (`don@integretechpub.com`), 4015 Carlisle Blvd NE, Suite A, Albuquerque, NM 87107. *An RIA Approach to Web Mathematics.*

This talk presents the efforts of an ongoing NSF-funded project to develop a Rich Internet Application (RIA) framework for web-based mathematics. The core of the project consists of an XHTML+MathML editor implemented entirely in Actionscript and delivered using Adobe's FlashPlayer—a platform that is very lightweight, works uniformly on all major browsers and operating systems, and is already installed on practically every networked computer. Through various configurations, this editor can support collaborative web-based authoring, highly interactive instructional content, or applications that require computation.

Several key design decisions will be addressed, including the choice of Actionscript over Java as the development language, the benefits of using Content MathML in math applications, designing different interfaces for developers and end users, and the limitations that prevent an RIA approach from being a universal solution to web-based mathematics. (Received September 22, 2009)