

1116-40-329

Simon Rubinstein-Salzedo* (simon@eulercircle.com), Palo Alto, CA 94306, and **Ashvin Swaminathan** (aaswaminathan@college.harvard.edu). *Analysis on surreal numbers*.

The surreal numbers form a Field that shares many algebraic properties with the field of real numbers. By contrast, the analytic properties of the surreal numbers and surreal functions are more subtle. In this talk, we describe some properties that we might hope that a formulation of surreal analysis would have (and why we are sometimes disappointed), and we discuss one possible approach to surreal analysis that mimics much of real analysis. Ashvin Swaminathan's talk in the same session will discuss further aspects of our approach to surreal analysis. (Received August 25, 2015)