

DREXEL ANALYSIS SEMINAR

April 26, 2013

**3-3:50 PM, Korman 245**

**Speaker:** Michela Redivo-Zaglia (Padua University, Italy)

**Title:** Padé-type rational and barycentric interpolation.

**Abstract:** In this paper, we consider the particular case of the general rational Hermite interpolation problem where only the value of the function is interpolated at some points, and where the function and its first derivatives agree at the origin. Thus, the interpolants constructed in this way possess a Padé-type property at 0. Numerical examples show the interest of the procedure. The interpolation procedure can be easily modified to introduce a partial knowledge on the poles and the zeros of the function approximated. A strategy for removing the spurious poles is explained. A formula for the error is proved in the real case. Applications are given.