1100-93-324 **Jennifer Emerson**, **Wenzhen Fan** and **Clyde F. Martin*** (`clyde.f.martin@ttu.edu`), Department of Mathematics and Statistics, 1400 Boston Ave, Lubbock, TX 79409. *Smoothing Splines for the Sphere.*

Data involving the movement of the head and eye can be thought of as coming from measurement on the sphere. In this talk we show that we can construct satisfactory smoothing splines on the sphere using either projections or the distance between lines treating the sphere as a double cover of projctive space. (Received February 10, 2014)