

## Comparison of Costello Geomagnetic Activity Index Model and JHU/APL Models for Kp Prediction

By: David Marchese

Mentors: Douglas Biesecker Christopher Balch





- •The Costello model tends to overpredict Kp consistently for all values •Statistical evaluations will have to be performed in order to determine if model performance is affected by the solar cvcle
- ·Additional validation studies should be carried out to determine if the JHU/APL models perform significantly better than the Costello model

## Detman, T., and J. A. Joselyn (1999), Real-time Kp predictions from ACE real time solar wind, in Solar Wind Nine, edited by S. R. Habbal et al., AIP Conf. Proc., 471, 729-732. Wing, S., J. R. Johnson, J. Jen, C.-I. Meng, D. G. Sibeck, K. Bechtold, J. Freeman, K. Costello, M. Balikhin, and K. Takahashi (2005), Kp forecast models, J. Geophys. Res., 110, A04203, doi:10.1029/2004JA010500