

**Meeting:** 998, Houston, Texas, SS 15A, Special Session on Geometric Variational Problems

998-49-179      **José Antonio Vallejo\*** ([jose.a.vallejo@fc.uaslp.mx](mailto:jose.a.vallejo@fc.uaslp.mx)), Facultad de Ciencias, Lat. Av.  
Salvador Nava s/n, 78290 San Luis Potosí, SLP, Mexico. *Jet bundle formalism for variational problems on supermanifolds.*

I intend to present some techniques and results related with the study of Lagrangian variational problems on supermanifolds. There are two kinds of such problems, depending on the notion of integral chosen: Berezinian and graded problems. They can be related by the so-called Comparison Theorem, and I will show how to exploit this connection with the aid of the Poincar-Cartan form on the higher-order graded jets bundle. Applications to Supermechanics and Superfield theories will be given. (Received February 24, 2004)