

1023-49-1664

M. Zuhair Nashed* (znashed@mail.ucf.edu), Department of Mathematics, University of Central Florida, Orlando, FL 32816-1364. *Slant Differentiability of Nonlinear Operators with Applications to Ill-Posed Inverse Problems.*

The concept of slant differentiability was introduced by X.Chen, Z.Nashed,and L.Qi[SIAM J.Numer.Anal 38(2000),1200-1216] in the context of smoothing methods and semi-smooth methods for nondifferentiable operators equations. The concept has found many applications in optimization, control theory, variational inequalities, and numerical analysis. In this talk we will present some theoretical results about slant differentiability, and indicate applications to nonsmooth inverse problems. (Received September 26, 2006)