1068-65-280 Qinian Jin\* (qnjin@math.vt.edu), Department of Mathematics, Virginia Tech, Blacksburg, VA 24061. Newton type regularization methods for solving nonlinear inverse problems.

I will present my recent work on some Newton type regularization methods for solving nonlinear inverse problems which are in general ill-posed. We consider the discrepancy principle to terminate the iterations and establish the order optimal convergence results. (Received January 19, 2011)