

1023-49-1117 **Kristian Bredies*** (kbredies@math.uni-bremen.de), University of Bremen, Postfach 33 04 40,
28334 Bremen, Germany. *Generalized gradient methods for non-linear inverse problems with
sparsity constraints.*

In this talk, generalizations of classical gradient methods for the constrained minimization of functionals are proposed. This allows to minimize functionals which are the sum of a smooth non-convex part and a non-smooth convex part. Moreover, convergence is shown and connections to recently proposed algorithms for the solution of non-linear inverse problems with sparsity constraints are discussed. (Received September 25, 2006)