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Alexander J. Zaslavski* (ajzasl@tx.technion.ac.il), Department of Mathematics, The Technion - Israel Institute of Technology, 32000 Haifa, Israel. *Convergence of a proximal point method and of a projected subgradient method in the presence of computational errors in Hilbert spaces.*

We discuss the convergence of a proximal point method in a Hilbert space under the presence of computational errors. Most results known in the literature establish the convergence of proximal point methods when computational errors are summable. In our recent work the convergence of the method is established for nonsummable computational errors. We show that the proximal point method generates a good approximate solution if the sequence of computational errors is bounded from above by some constant. We also discuss the convergence of the projected subgradient method for constrained convex optimization in a Hilbert space. Our goal is to obtain an approximate solution of the problem in the presence of computational errors. (Received August 18, 2011)