1046-35-842 Gaston M. N'Guerekata*, 1700 East Cold Spring Ln, Baltimore, MD 21251, and Alexander Pankov, 1700 East Cold Spring Ln, Baltimore, MD 21251. Stepanov-like almost automorphy and monotone evolution equations.

We inroduce and study classes of Stepanov-like almost automorphic functions with values in a Banach space and study their properties. These classes include the space of Bochner almost automorphic functions and generalize the spaces of Stepanov almost periodic functions. As an application, we present an existence and uniqueness result for solutions of such kind to monotone evolution equations of the form u' + A(t)u = f(t), with Stepanov-like almost automorphic forcing term f(t). (Received September 12, 2008)