962-42-34 **Gerard T. LaVarnway*** (lavarnwa@norwich.edu), Department of Mathematics, Norwich University, Northfield, VT 05663, and **Roger L. Cooke** (cooke@emba.uvm.edu), Department of Mathematics and Statistics, University of Vermont, Burlington, VT 05401-1455. *Characterization of Fourier series of Stepanov almost-periodic functions.*

It is shown by counterexample that a general trigonometric series may fail to be the Fourier series of a Stepanov almost-periodic function of class $S_{\mathrm{ap}}^{(p)}$ $(p > 1)$ even when its Abel means are bounded in the norm of this space, but that it is the series of such a function if these means are also equicontinuous in that norm. A simple example of an infinitely differentiable function belonging to all classes of Besicovitch almost-periodic functions but to no Stepanov class is given. This example is closely related to the standard example of an almost-automorphic function that is not almost-periodic. (Received July 06, 2000)