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Russell Jeter* (russell.jeter@outlook.com), Department of Mathematics and Statistics, Georgia State University, 30 Pryor street, Atlanta, GA 30303, and **Igor Belykh** (ibelykh@gsu.edu), Department of Mathematics and Statistics, Georgia State University, 30 Pryor street, Atlanta, GA 30303. *Synchrony in Metapopulations with on-off Stochastic Dispersal: Windows of Opportunity.*

We consider ecological networks in which migration between patches and other intrinsic system parameters are stochastic in nature. We study the role of this stochasticity and how it relates to synchronization, especially in cases when the time scale of the stochastic process is slow with regard the inherent time scale of the system. We find that such a system can favor synchrony, despite the network being disconnected for large time intervals. We also reveal unexpected windows of intermediate switching periods in which metapopulation synchronization becomes stable even though it is unstable in the fast-switching network and/or its static analog where the stochastic connections are replaced by their mean. (Received February 03, 2015)