ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

Invitation to a Guest Lecture

Prof. Dr. Peter E. Kloeden

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"Lattice Difference Equations"

N.2.35 | Wednesday, 29 September 2021 | 10:00 a.m.

Abstract

Lattice difference equations are essentially difference equations on a Hilbert space of bi-infinite sequences. They are motivated by the discretisation of the spatial variable in integrodifference equations arising in theoretical ecology. It is shown here that under similar assumptions to those used for such integrodifference equations they have a global attractor, to which the global attractors of finite dimensional approximations converge upper semi continuously. Corresponding results are also shown for lattice difference equations when only a finite number of interconnection weights are nonzero and when the interconnection weights themselves vary and converge in an appropriate manner. Random lattice difference equations and their random attractors will also be discussed.

Christian Pötzsche and the Department of Mathematics look forward to seeing you at the talk!