1116-37-2016   **Dinesh Kasti*** (`dkasti@fau.edu`) and **William D Kalies** (`wkalies@fau.edu`). *Lifting sublattices of attractors/repellers to the lattice of (pre-)Lyapunov functions.*

Under the context of general dynamical systems where the underlying map may not be a diffeomorphism and may be merely a continuous map, we describe the lifting of its sublattices of attractors (and repellers) to the lattice of (pre-)Lyapunov functions. This work is motivated from the authors' previous work on the conditions of the existence and the algorithmic construction of a lift of sublattices of attractors to the lattices of forward invariant sets and the lattices of attracting neighborhoods. We explore the conditions under which such a lift can exist and also provide algorithmic construction of such a lift when it exists. We illustrate our algorithms with some examples. (Received September 21, 2015)