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GLOBAL BEHAVIOR OF DYNAMICAL SYSTEMS

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Abstract of Talk: In the analysis of dynamical systems, the most central concept is that of the system's limit sets. Traditionally, two distinct methods are employed in the characterization of these limit sets: chain recurrence, and attractor-repeller theory. In this talk, I will present an overview of a paper I have recently co-written, in which it will be shown that these two methods yield the same description of the limit sets, and thus are equivalent. More specifically, assuming a finest Morse Decomposition on the system, the minimal attractors and repellers are themselves chain recurrent.