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The TQ-bifurcation in Discrete Dynamical Systems. General Properties.

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Abstract. A new class of bifurcations has been defined in discrete dynamical systems determined by discrete maps. This paper focuses on TQ-bifurcations that manifest as qualitative change of map trajectory shapes in the extended space of states. We have described the main properties of the TQ-bifurcations, classified them and proposed methods to diagnose them. An analysis of a logistic map has been carried out.

Keywords: symbolic CTQ-analysis, symbolic TQ-image, TQ-bifurcation.

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