The Degeneration of Reachable Singular Systems under Feedback-Transformations

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Abstract: In this paper we consider the feedback-action for reachable singular systems and its limit phenomena. Firstly we introduce the invariants which parametrize the feedback-orbits. These results were published in part a few years ago independently by different authors (see [?, ?, ?]). Then we characterize the orbit closures in the space of all reachable systems in terms of these invariants. This gives a contribution to the answer of the question: how does a system might look like, which occurs as the limit of a sequence of feedback-transformations, applied to a given system?

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AMS Subject Classification: