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**Behaviors of real-time schedulers  
under resource modification and a  
steady scheme with bounded  
utilization**

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**Abstract:** In this article we present an analysis for task models having random resource needs and different arrival patterns. In hard real-time environments like avionic systems or nuclear reactors, the inputs to the system are obtained from real world by using sensors. And it is highly possible for a task to have different resource needs for each period according to these changing conditions of real world. We made an analysis of schedulers for task models having random resources in each period. Since feasibility tests for usual task models are just limited to some specific schedulers and arrival patterns, we made our analysis using different preemptive schedulers with different arrival