

# Supplement of “Time-Reversibility for Real-Time Scheduling on Multiprocessor Systems”

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## MORE EVALUATION GRAPHS

Figures 11 and 12 illustrate the ratio of schedulable task sets by  $RTA_{EDF}$  and  $TR_{EDF}$ , when we target implicit- and constrained-deadline task sets, respectively. The X-axis and Y-axis of each figure show task set utilization and the ratio of schedulable task sets, respectively. We have two observations: (i) the schedulability improvement is pronounced when task set utilization is middle, and (ii) such behavior holds for all combinations of different  $m$  and task types (i.e., either implicit- or constrained-deadline), both of which are compliant with the observations from Section 6.

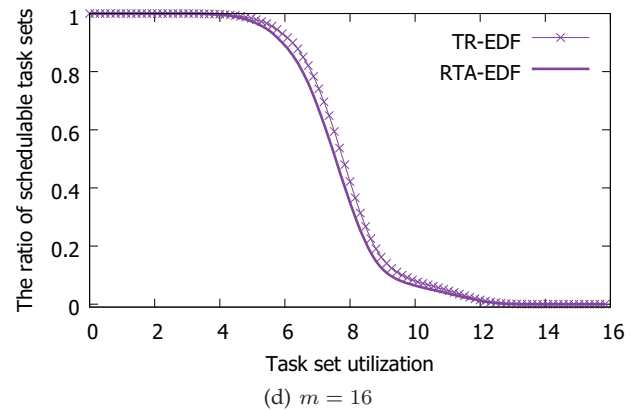
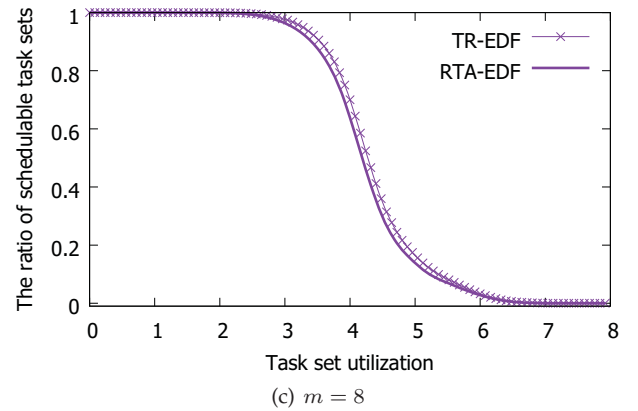
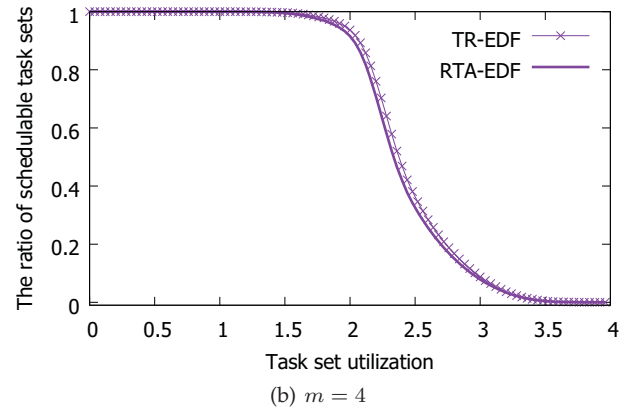
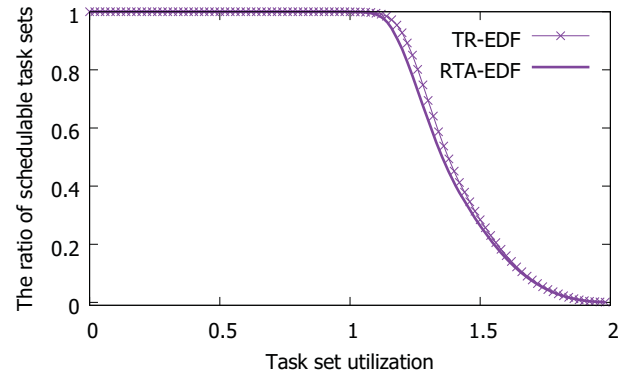


Fig. 11. The ratio of schedulable implicit-deadline task sets by  $TR_{EDF}$  and  $RTA_{EDF}$

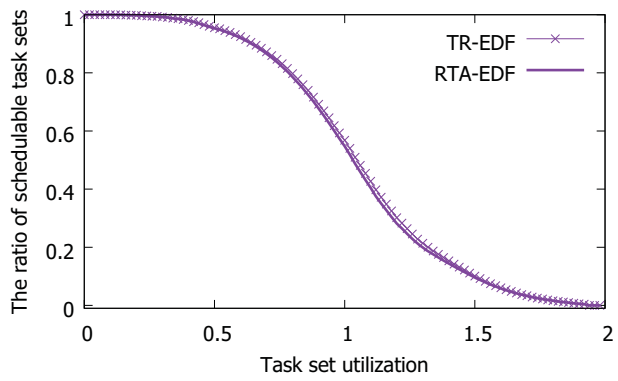
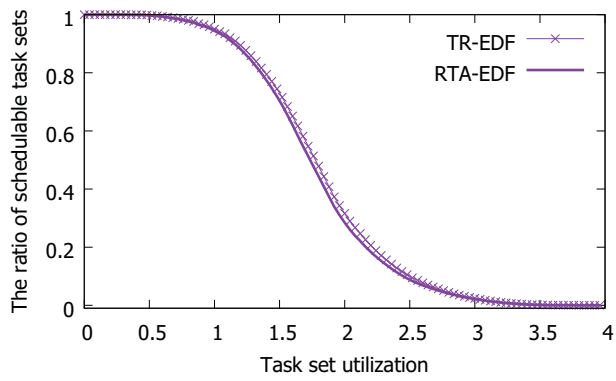
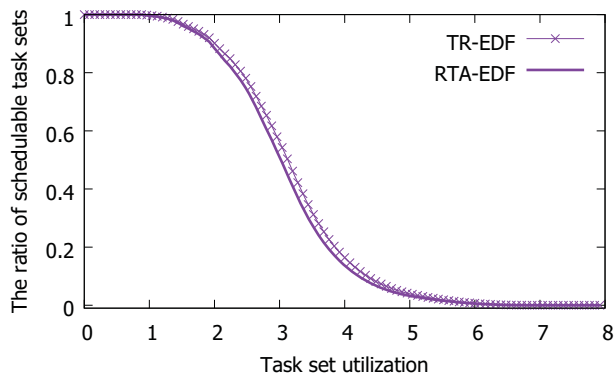
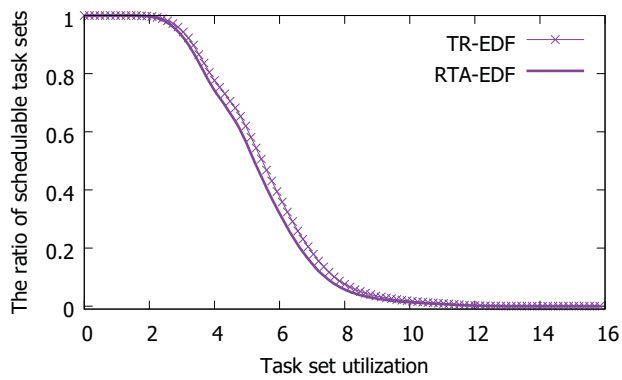
(a)  $m = 2$ (b)  $m = 4$ (c)  $m = 8$ (d)  $m = 16$ 

Fig. 12. The ratio of schedulable constrained-deadline task sets by  $TR_{EDF}$  and  $RTA_{EDF}$