Working group
Optimizing Real-Time Systems
(OVSTR)

Telecom ParisTech 23 May 2016
Presentation and goals

- Topic: optimizing the design of real-time systems from high-level language to hardware levels
  - Focusing on cross-layer optimizations

- One day meetings
  - Morning: invited talk (more) on the state-of-the-art
  - Afternoon: presentations focusing on a given subject

- Goal: try to define scientific problems to address between participants
  - A slot of 1 hour for discussions and proposals of topics for the next meeting
Program: parallelization of real-time tasks

- 9h45 - 10h00 : welcome & goals
- 10h00 - 11h00 : Real-time multiprocessor scheduling of parallel tasks (Laurent George)
- 11h00 - 12h00 : Timing analysis of parallel tasks running on parallel architectures (Christine Rochange)

- 12h00 - 14h00 : lunch break

- 14h00 - 14h30 : Energy Minimisation for Parallel Fork-Join Tasks on an Embedded Real-Time Operating System (Antonio Paolillo)
- 14h30 - 15h00 : Opportunities and challenges of many cores for future avionics apps. A journey starting from low criticality (Philippe Baufreton)

- 15h00 - 15h30 : coffee break

- 15h30 - 16h00 : Code Generation of Time Critical Synchronous Programs on the Kalray MPPA Many-Core architecture (Amaury Graillat)
- 16h00 - 17h00 : discussions and proposals of topics for the next meeting