The CASERM Project-Team

Our long-term goal: a Coq-based design and verification tool-chain for reconfigurable multiview embedded systems

- motivational example: autonomous driving

The CASERM PERSYVAL-Lab project-team:
Design & analysis of reconfigurable multiview embedded systems

- Follow-up of the CTRC PERSYVAL-Lab exploratory project
- 2 PhD students funded until end of 2019

Consortium: G-SCOP, INRIA/LIG, VERIMAG

Partners: MPI-SWS, TU BRAUNSCHWEIG
CASERM: Challenges and Objectives

1. **Modeling**: an *architecture description language* that is suitable for reconfigurable multiview embedded systems

2. **Analysis**: efficient *algorithms for online optimization* of dynamical real-time systems with hard and soft deadlines

3. **Certification**: a *Coq library* of reusable concepts and proofs for mechanically verifying the analysis of real-time systems

4. **Applications**: an *evaluation* of our research results against real-life case studies

* A PhD position is funded by PERSYVAL-Lab on the topic.