

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 **Coo 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.