Recent Advances in Model Checking
(IN0012, IN2106)

Practical course

Prof. J. Kretinsky, J. Eisentraut, A. Evangelidis, S. Mohr, M. Weininger
- Quantitative (e.g. probabilistic), more agents, several competing properties,…
- Well-established industrial method & recent research
**Content**

1. Understand the ideas of a recent scientific publication.
2. Implement them.
3. Test them.

Different focus, depending on paper:

- **Theory:** Understanding and extracting the ideas
- **Implementation:** Technically involved
- **Evaluation:** Comparing multiple ideas

Publications (and hence focus) will be selected after a short introductory lecture phase.
Structure

~4 weeks: Introductory lectures about theory common to all papers and relevant software to build on

~4 weeks: Understanding paper, developing prototype
   Groups of up to 3 people, mostly independent.

Midterm presentation: Convince us that you are on the right track

~4 weeks: Finishing implementation, writing documentation

Endterm presentation: Demonstrate what you achieved
What do we expect?

- Working code that we can execute on several examples and reproduce your results.
- Documentation that allows us to find and understand the most important methods of your code.
- Endterm presentation to demonstrate that you solved the problem.
- Midterm presentation to demonstrate that you are on the right track. E.g. by showing understanding and identifying missing parts; unit tests for existing code; and dummy methods for missing parts.

More details follow in the actual course.

Which questions remain unanswered?
Addendum: To be preferred in the matching, send a mail to maxi(dot)weininger(at)tum(dot)de, giving your name and matriculation number.