Knowledge Graphs, Description Logics and Reasoning on Data

C. Bourgaux, M. Thomazo
Course Organization

Lecturers

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Material and schedule

- Course material will be online at https://www.di.ens.fr/camille.bourgaux/teaching/IASD-KGDL/index.html
- Courses: March 2 and 9, April 6 and 13, May 18, 20 and 25, June 29 from 8:30 to 11:45
- Exam: July 6 from 9:00 to 12:00
- References given at the beginning of each part of the course
  - If you have trouble accessing them (paywall,...), email us
- Please install Protégé (do not use WebProtégé):
  http://protege.stanford.edu/
Outline of the Course

1. Knowledge graphs and ontologies
   - Reminders on RDF, SPARQL
   - Goal of this course: Accessing data through an ontology
   - Ontology formalisms

2. Ontological reasoning
   - Classical reasoning tasks
   - Satisfiability for $\mathcal{ALC}$
   - Classification for $\mathcal{EL}$

3. Ontology-based query answering: The basics
   - Ontology based data access
   - Decidability issues
   - Chase
   - Query rewriting

4. OBQA: Advanced topics