



Uncertain Data Management Class Structure

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November 21st, 2017

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Class 1 (Nov 21): Introduction and uncertain models

- **Motivations** and **sources** of uncertain data
- Class **structure** (these slides!)
- **Reminder:** relational algebra and relational calculus
- **Missing values** (NULLs)
- **c-tables**
- **Representation size** for the various models

Class 2 (Dec 5): Exercices, and probabilistic models

- **Exercices** on uncertain models
- **Probabilistic models:**
 - Tuple-independent databases
 - Block-independent disjoint databases
 - pc-tables

Class 3 (Dec 12): Probabilistic querying, and lab session

- **Semantics** of queries on uncertain data
- **Extensional** approach: evaluating the query **directly**
- **Intensional** approach: computing the query **lineage**
- Tractable **rules** for query evaluation
- Tractable **lineage** classes
- Computational **hardness** results
- **Lab session**

Class 4 (Dec 19): Exercices, and exam

- **Exercices** on probabilistic models
- **Exam** on uncertain and probabilistic models