Empirical Algorithmics

Holger H. Hoos

Department of Computer Science
University of British Columbia
Canada

Course overview

- Module 1: Introduction
- Module 2: Deterministic algorithms for decision problems

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- Module 3: Randomised algorithms for decision problems
- Module 4: Algorithms with error for decision problems

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- Module 2: Deterministic algorithms for decision problems
- Module 3: Randomised algorithms for decision problems
- Module 4: Algorithms with error for decision problems
- Module 5: Algorithms for optimisation problems
- Module 6: Advanced topics

Advanced topics may include the following:

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- experimental design
- algorithm portfolios
- self-tuning mechanisms, meta-parameters
- multi-objective optimisation algorithms
- real-time algorithms
- interaction with a non-deterministic environment (humans, internet, . . .)

Lecture schedule:

Mon, 29 May,	9:00–11:00,	Room 205, III Irst	[Module 1]
Tue, 30 May,	9:00–11:00,	Room 207, III Irst	[Module 2]
Wed, 31 May,	13:30–15:30,	Room 107, III Irst	[Module 2/3]
Thu, 1 June,	8:30–10:30,	Room 201, III Irst	[Module 3]

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Fri, 9 June,	9:00–13:00,	Room 108, III Irst	[Module 4]

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Fri, 9 June,	9:00–13:00,	Room 108, III Irst	[Module 4]
Mon, 12 June,	9:00–11:00,	Room 108, III Irst	[Module 5]
Tue, 13 June,	9:00–11:00,	Room 106, III Irst	[Module 6]
Thu, 15 June,	9:00–13:00,	Room 106, III Irst	[Module 6]

Student assessment:

- 2 assignments, consisting of literature study, knowledge testing questing, some programming / hands-on problems; probably to be released around 2/9 June, due 9/15 June at the beginning of class, marked $\sim$12/20 June [$\sim$40%]

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- in-class participation (possibly including short presentation) [∼20%]

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- Please ask questions, contribute your comments and ideas.