

Discrete Optimization

MA2827

Fondements de l'optimisation discrète

- Two lecturers



Karteek Alahari
Inria Grenoble



Yuliya Tarabalka
Inria Sophia-Antipolis

- Contact: ecp.ma2827@gmail.com

Course organization

- 8 lectures
- 3 lab/office-hour sessions
- Slides available at
<https://project.inria.fr/2015ma2827/>
- Course material courtesy of M. Pawan Kumar

Syllabus

- Shortest path
- Minimum spanning tree
- Minimum cut
- Knapsack, Branch-and-bound
- Complexity (NP, NP-complete, NP-hard)
- Approximate algorithms
- Linear programming, relaxations
- Constraint programming

During the Class...



Evaluation

- Final exam (50%)
- Programming assignments (50%)
 - Penalty for late and no submissions; see website
- Bonus points – class participation