

MATH 4230 Project Specification

You may form a group of at most 2 students. You are required to read some articles related to optimization and submit a report of length at least 5 pages. The deadline of the report is 5th, April, 2019.

List of articles:

- 1) A. Chambolle, T. Pock, "A First-Order Primal-Dual Algorithm for Convex Problems with Applications to Imaging"
- 2) A. Chambolle, "An Algorithm for Total Variation Minimization and Applications"
- 3) X. Cai, R. Chan, and T. Zeng, "A Two-Stage Image Segmentation Method Using a Convex Variant of the Mumford–Shah Model and Thresholding"
- 4) Y. Huang, D. Lu and T. Zeng, "A Two-Step Approach for the Restoration of images Corrupted by Multiplicative Noise"
- 5) Y. Dong, and T. Zeng, "A Convex Variational Model for Restoring Blurred Images with Multiplicative Noise"
- 6) Y. Cui, D. Sun, K. Toh, "On the R-superlinear convergence of the KKT residuals generated by the augmented Lagrangian method for convex composite conic programming"
- 7) X. Zhao, D. Sun, K. Toh, "A Newton-CG Augmented Lagrangian Method for Semidefinite Programming"
- 8) S. Boyd, N. Parikh, "Distributed Optimization and Statistical Learning via the Alternating Direction Method of Multipliers"
- 9) N. Parikh, S. Boyd, "Proximal Algorithms"
- 10) Any other related papers