

Dictionary (terms used in the class)

Class 1

- closed set = 閉集合
- concave = 凹
- cone = 錐
- constraints = 制約条件
- convex = 凸
- feasible = 実行可能
- feasible region = 実行可能領域
- global minimizer = 大域的最小解
- gradient = 勾配
- infeasible = 実行不可能
- inner product = 内積
- linear programming = 線形計画
- local minimizer = 局所最小解
- necessary optimality conditions = 最適性の必要条件
- nonlinear programming = 非線形計画
- normal cone = 法線錐
- objective function = 目的関数
- optimality conditions = 最適性条件
- optimal solution = 最適解
- polar cone = 極錐
- positive definite = 正定値
- positive semidefinite = 半正定値
- stationary point = 停留点
- tangent cone = 接錐
- transpose = 転置
- unconstrained = 無制約

Class 2

- convex combination = 凸結合
- convex hull = 凸包
- orthonormal basis = 正規直交基底

Class 3

- active constraint = 有効制約
- constraint qualifications = 制約想定
- linear independent = 一次独立
- linearized cone = 線形化錐
- nonsingular matrix = 正則行列

Class 4

- bounded = 有界
- duality gap = 双対ギャップ
- dual problem = 双対問題
- Lagrange multipliers = ラグランジュ乗数
- primal problem = 主問題
- strong duality = 強双対
- unbounded = 非有界
- weak duality = 弱双対

Class 5

- boundary = 境界
- closure = 閉包
- interior = 内部
- projection = 射影

Class 6

- branch-and-bound method = 分枝限定法
- integer programming = 整数計画問題
- Kernel function = カーネル関数
- lower bound = 下界
- overfitting = 過学習
- regression function = 回帰関数
- regularization = 正則化
- relaxation problem = 緩和問題
- support vector regression = サポートベクター回帰

Class 7

- separable = 分解可能
- robust optimization = ロバスト最適化
- uncertainty set = 不確実集合
- second-order cone programming = 2次錐計画

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