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convex analysis

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0.0.1 Convex sets

- 1. convex set
- 2. polyconvex set
- 3. extreme point
- 4. convex combination
- $5. \ \mathtt{http://planetmath.org/CaratheodorysTheorem2} Carathodory's \ theorem$
- 6. Radon's lemma
- 7. Helly's theorem

0.0.2 Topological properties of convex sets

1. Krein-Milman theorem

0.0.3 Convex functions

- 1. convex function
- 2. extremal value of convex/concave functions
- 3. logarithmically convex function
- 4. Jensen's inequality
- 5. subdifferentiable mapping

0.0.4 Miscellaneous

- 1. Fenchel's duality theorem
- 2. saddle function
- 3. minimax theory