

ON STRONGLY CONVEX FUNCTIONS AND RELATED CLASSES OF FUNCTIONS

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Many results on strongly convex functions and related classes of functions obtained in the last few years is collected in the talk. In particular, Jensen, Hermite–Hadamard and Fejér–type inequalities for strongly convex functions are presented. Counterparts of the classical Bernstein–Doetsch and Sierpiński theorems for strongly midconvex functions are given. New characterizations of inner product spaces involving strong convexity are obtained. A representation of strongly Wright-convex functions and a characterization of functions generating strongly Schur-convex sums are presented. Strongly n -convex and Jensen n -convex functions are investigated. Finally, a relationship between strong convexity and generalized convexity in the sense of Beckenbach is established.

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