Homogeneous Aggregation Operators

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Abstract: Recently, the utilization of invariant aggregation operators, i.e., aggregation operators not depending on a given scale of measurement was found as a very current theme. One type of invariantness of aggregation operators is the homogeneity what means that an aggregation operator is invariant with respect to multiplication by a constant. We present here a complete characterization of homogeneous aggregation operators. We discuss a relationship between homogeneity, kernel property and shift-invariance of aggregation operators. Several examples are included.

Keywords: aggregation operator; homogeneity; kernel property;

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