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Approximability and parameterized complexity of multicolor by $c$-intervals.

Summary: A $c$-interval is the disjoint union of $c$ intervals over $\mathbb{N}$. The $c$-INTERVAL MULTICOVER problem is the special case of SET MULTICOVER where all sets available for covering are $c$-intervals. We strengthen known APX-hardness results for $c$-INTERVAL MULTICOVER, show W[1]-hardness when parameterized by the solution size, and present fixed-parameter algorithms for alternative parameterizations.

Keywords: algorithms; NP-hard problems; APX-hardness; fixed-parameter tractability; W[1]-hardness; set cover
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