1145-03-2206 **Barbara Csima**, **Damir Dzhafarov**, **Denis Hirschfeldt**, **Carl G. Jockusch**, **Reed Solomon** and **Linda Brown Westrick*** (`lzw299@psu.edu`). *Computability and Hindman's Theorem for bounded sums.*

Hindman's Theorem states that for every coloring of $\mathbb{N}$ by finitely many colors, there is an infinite subset $H \subseteq \mathbb{N}$ such that all non-empty finite sums of distinct elements of H have the same color. One can weaken the conclusion of the theorem by requiring only that all non-empty sums of up to k distinct elements of H have the same color, but all known proofs of this weaker fact are also proofs of Hindman's Theorem. We analyze the computability-theoretic aspects of bounded versions of Hindman's Theorem. (Received September 25, 2018)

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