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Title: The convergence of the sequences coding the ground model reals

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We investigate the convergence λ_1 on a complete Boolean algebra $\mathbb{B}$ defined in the following way: a sequence $x = \langle x_n : n \in \omega \rangle$ in $\mathbb{B}$ converges to the point $\limsup x$ of $\mathbb{B}$, if in each generic extension $V_{\mathbb{B}}[G]$ the real coded by the name $\tau_x = \{\langle \check{n}, x_n \rangle : n \in \omega\}$ belongs to the ground model V; otherwise, x has no limit points. It is shown that λ_1 generates the same topology as the convergence $\bar{\lambda}_4$, generalizing the sequential convergence on the Aleksandrov cube and that for a c.B.a. $\mathbb{B}$ the following conditions are equivalent: (1) The algebra $\mathbb{B}$ is $(\omega, 2)$-distributive; (2) The (L2)-closure of λ_1, $\bar{\lambda}_1$, is a topological convergence; (3) $\bar{\lambda}_1 = \bar{\lambda}_4$; (4) $\lambda_1 = \lambda_4$; and, for the algebras satisfying $\mathrm{hcc}(\mathbb{B}) > \mathfrak{c}$, (5) $\bar{\lambda}_1$ is a weakly topological convergence. Also, it is shown that the convergence $\bar{\lambda}_1$ is not weakly topological, if forcing by $\mathbb{B}$ produces splitting reals.

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