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Reflecting character and pseudocharacter

Comment.Math.Univ.Carolin. 56,3 (2015) 365–376.

Abstract: We say that a cardinal function ϕ reflects an infinite cardinal κ , if given a topological space X with $\phi(X) \geq \kappa$, there exists $Y \in [X]^{\leq \kappa}$ with $\phi(Y) \geq \kappa$. We investigate some problems, discussed by Hodel and Vaughan in *Reflection theorems for cardinal functions*, Topology Appl. **100** (2000), 47–66, and Juhász in *Cardinal functions and reflection*, Topology Atlas Preprint no. 445, 2000, related to the reflection for the cardinal functions character and pseudocharacter. Among other results, we present some new equivalences with CH.

Keywords: cardinal function; character; pseudocharacter; reflection theorem; compact spaces; Lindelöf spaces; continuum hypothesis

AMS Subject Classification: Primary 54A25, Secondary 54A35, 54D20, 54D30

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