

Caicedo, Andrés Eduardo; Schindler, Ralf

Projective well-orderings of the reals. (English) Zbl 1110.03035

Arch. Math. Logic 45, No. 7, 783-793 (2006).

Summary: If there is no inner model with ω many strong cardinals, then there is a set forcing extension of the universe with a projective well-ordering of the reals.

MSC:

- 03E15 Descriptive set theory (logic)
- 03E35 Consistency; independence results (set theory)
- 03E45 Constructibility, ordinal definability, and related notions
- 03E55 Large cardinals

Keywords:

projective well-orderings; core models; strong cardinals; set forcing extension

Full Text: [DOI](#)

References:

- [1] Caicedo, A. Simply definable well-orderings of the reals. PhD Dissertation, Department of Mathematics, University of California (2003)
- [2] Harrington L. (1977) Long projective well-orderings. Ann. Math. Logic 12(1): 1–24 · [Zbl 0384.03033](#) · [doi:10.1016/0003-4843\(77\)90004-3](#)
- [3] Hauser K. (1995) The consistency strength of projective absoluteness. Ann. Pure Appl. Logic 74(3): 245–295 · [Zbl 0836.03025](#) · [doi:10.1016/0168-0072\(94\)00041-Z](#)
- [4] Hauser K., Hjorth G. (1997) Strong cardinals in the core model. Ann. Pure Appl. Logic 83(2): 165–198 · [Zbl 0869.03028](#) · [doi:10.1016/S0168-0072\(97\)00014-6](#)
- [5] Hauser K., Schindler R. (2000) Projective uniformization revisited. Ann. Pure Appl. Logic 103(1–3): 109–153 · [Zbl 0961.03041](#) · [doi:10.1016/S0168-0072\(99\)00038-X](#)
- [6] Kunen K. (1980) Set Theory. An Introduction to Independence Proofs. Elsevier, Amsterdam · [Zbl 0443.03021](#)
- [7] Mansfield R. (1975) The non-existence of a Σ^1_2 well-ordering of the Cantor set. Fundam. Math. 86(3): 279–282 · [Zbl 0317.02080](#)
- [8] Mitchell W., Schimmerling E. (1995) Covering without countable closure. Math. Res. Lett. 2(5): 595–609 · [Zbl 0847.03024](#)
- [9] Mitchell W., Schimmerling E., Steel J. (1997) The covering lemma up to a Woodin cardinal. Ann. Pure Appl. Logic 84(2): 219–255 · [Zbl 0868.03021](#) · [doi:10.1016/S0168-0072\(96\)00032-2](#)
- [10] Mitchell W., Steel J. (1994) Fine Structure and Iteration Trees. Springer, Berlin Heidelberg New York · [Zbl 0805.03042](#)
- [11] Schindler R. (2001) Coding into K by reasonable forcing. Trans. Am. Math. Soc. 353(2): 479–489 · [Zbl 0960.03043](#) · [doi:10.1090/S0002-9947-00-02636-2](#)
- [12] Schindler R. (2002) The core model for almost linear iterations. Ann. Pure Appl. Logic 116(1–3): 205–272 · [Zbl 1017.03029](#) · [doi:10.1016/S0168-0072\(01\)00113-0](#)
- [13] Steel, J. The derived model theorem. (Unpublished manuscript)
- [14] Steel J. (1996) The Core Model Iterability Problem. Springer, Berlin Heidelberg New York · [Zbl 0864.03035](#)