

- ▶ RUSSELL MILLER, ALEXEY OVCHINNIKOV, *Adapting Rabin's Theorem for Differential Fields*.

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Harrington extended the first half of Rabin's Theorem to differential fields, proving that every computable differential field can be viewed as a computably enumerable subfield of a computable presentation of its differential closure. For fields F , the second half of Rabin's Theorem says that this subfield is Turing-equivalent to the set of irreducible polynomials in $F[X]$. We investigate possible extensions of this second half, asking both about the degree of the differential field K within its differential closure and about the degree of the set of constraints for K , which forms the closest analogue to the set of irreducible polynomials.