

Zbl 0712.03044**Kanamori, Akihiro; Averbuch-Friedlander, Tamara****The compleat 0^\dagger .** (English)

Z. Math. Logik Grundlagen Math. 36, No.2, 133-141 (1990). ISSN 0044-3050

<http://dx.doi.org/10.1002/malq.19900360206><http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291521-3870/issues>

0^\dagger is the (set of Gödel numbers of the formulae in the) theory of the structure $\langle L[U], \in, \kappa, U, x_1, x_2, x_3, \dots, y_1, y_2, y_3, \dots \rangle$ where U is a normal measure on the cardinal κ , and $\langle x_1, x_2, x_3, \dots \rangle$ and $\langle y_1, y_2, y_3, \dots \rangle$ are increasing enumerations of sets X and Y of ordinals with $X < \kappa < Y$ which are indiscernibles for $\langle L[U], \in, \kappa, U \rangle$, in the sense that the truth value of

$$\langle L[U], \in, \kappa, U \rangle \models \phi[\alpha_1, \dots, \alpha_m, \beta_1, \dots, \beta_n]$$

is independent of the choice of the increasing sequences $\langle \alpha_1, \dots, \alpha_m \rangle$ from X and $\langle \beta_1, \dots, \beta_n \rangle$ from Y .

0^\dagger was first defined by Solovay, who showed that if there were to measurable cardinals κ, λ with $\kappa < \lambda$ then 0^\dagger exists [see *A. R. D. Mathias*, *Period. Math. Hung.* 10, 109-175 (1979; Zbl 0417.03021)]. The set 0^\dagger plays a similar role for inner models with a measurable cardinal as $0^\#$ plays for L .

Various results about 0^\dagger have appeared in the literature. However the survey paper under review is the first detailed presentation of the theory of 0^\dagger . Section 1 defines 0^\dagger and contains the appropriate Ehrenfeucht-Mostowski theory and shows that sufficiently strong large cardinal hypotheses generate models $L[U]$ with indiscernibles. In section 2 connections are established between classes of indiscernibles for various of these models. Finally, section 3 reviews various characterizations of the existence of 0^\dagger .

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Keywords : 0^\dagger dagger; indiscernibles; measurable cardinals; inner models; survey paper; Ehrenfeucht-Mostowski theory

Classification :

- *03E45 Constructibility, ordinal definability, and related notions
- 03E55 Large cardinals
- 03E10 Ordinal and cardinal arithmetic