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Î±-Recursion Theory

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Publisher Summary

This chapter presents the current state of Î±-recursion theory (i.e., recursion theory on admissible ordinals). To generalize recursion theory, one must first decide what are the basic objects and notions in ordinary recursion theory that one wishes to generalize or abstract. Natural numbers 0, 1, 2, 3, and so on are the primary elements of the universe, while the basic notions of interest seem to be recursiveness and recursive enumerability. One natural generalization for the numbers is ordinals. There are two choices corresponding natural numbers. One can take either all the ordinals or just some initial segment of ordinals up to, for example, $\hat{I}\pm$, as the basic objects. The chapter concentrates on the latter approach.

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Î±-recursion theory, the body consistently takes into account the Ostashkov superconductor.
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