

- ROBERT S. LUBARSKY, *Feedback hyperjump*.
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Under feedback computability, the halting problem relative to the halting problem is the halting problem: $X = X'$. Most, if not all, notions of computation that allow for an oracle have a feedback version. The ones that have been explored so far are Turing computability, primitive recursion, and infinite time Turing machines. This talk will include an introduction to feedback, and the current state of knowledge about feedback hyperjump ($X = \mathcal{O}^X$).

[1] NATHANAEL ACKERMAN, CAMERON FREER, AND ROBERT LUBARSKY, *Feedback Computability on Cantor Space*, **Logical Methods in Computer Science**, LICS 2015 Special Issue, to appear; also available at <http://math.fau.edu/lubarsky/pubs.html>

[2] NATHANAEL ACKERMAN, CAMERON FREER, AND ROBERT LUBARSKY, *An Introduction to Feedback Turing Computability*, **Annals of Pure and Applied Logic**, LFCS 2016 Special Issue, submitted; also available at <http://math.fau.edu/lubarsky/pubs.html>

[3] ROBERT LUBARSKY, *ITTM's with Feedback*, **Ways of Proof Theory** (Ralf Schindler, editor), Ontos, Eichenweg 25, Ortenberg 63683, Germany, <http://www.ontos-verlag.de>, <http://www.ontoslink.com/>, 2010, pp. 341-354

[4] ROBERT LUBARSKY, *Parallel Feedback Turing Computability*, **Proceedings of LFCS 2016, Lecture Notes in Computer Science 9537** (Artemov and Nerode, editors)