# Lawvere-Tierney topologies and games

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In the original, seminal paper on the effective topos, Martin Hyland already proved that Turing degrees give rise to Lawvere-Tierney topologies in the effective topos, so the latter can be seen as a generalization of the former. In a paper from 2011, the speaker and Sori Lee discussed a number of topologies which are not Turing degrees. Recent work by Takeyuki Kihara shows a striking connection between topologies and generalized notions of Turing reductions, via games. The talk aims at discussing these developments.