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Dynamic Logic of Relation Changers Meets Brouwer

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This talk proposes an intuitionistic generalization of van Benthem and Liu (2007)'s dynamic logic of relation changers, where relation changers are dynamic operators which rewrite each agent's accessibility relation. We employ Nishimura (1982)'s Kripke semantics for a constructive propositional dynamic logic to define the semantics of relation changers. A sound and complete axiomatization of the constructive dynamic logic of relation changers is provided. Moreover, we follow Hatano and Sano (2020)'s approach to provide a different semantics for dynamic logic of relation changers, where relation changers are regarded as bounded morphisms. This alternative semantics leads us to a semantic completeness proof of the axiomatization for the original semantics, which does not require a reduction strategy based on recursion axioms.