Citations | From References: 1 | From Reviews: 1

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Wolter, Uwe (N-BERG-I); **König, Harald [König, Harald²]** (D-FHHAN)
Fibred amalgamation, descent data, and Van Kampen squares in topoi. (English summary)
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Summary: "Reliable semantics for software systems has to follow the semantics-as-instance principal (fibred semantics) rather than the semantics-as-interpretation principal (indexed semantics). While amalgamation of interpretations is simple and nearly always possible, amalgamation of instances is very much involved and not possible in many cases. A condition when two compatible instances (a span of pullbacks) are amalgamable, is presented for presheaves, i.e. functor categories $SET^{\mathcal{S}}$. Based on this individual condition we prove further a total condition for amalgamation which simultaneously yields a necessary and sufficient condition for pushouts to be Van Kampen squares. As a necessary and adequate basis to achieve these results we provide a full revision and adaption of the theory of descent data in topoi for applications in diagrammatic specifications including graph transformations. Especially, we characterize Van Kampen squares in arbitrary topoi by pullbacks of categories of descent data."

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Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.