

Ecumenical modal logic

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Recent works about systems where connectives from classical and intuitionistic logics can co-exist in peace warmed the discussion of proof systems for combining logics, called Ecumenical systems by Prawitz and others [5, 4].

In Prawitz' system, the classical logician and the intuitionistic logician would share the universal quantifier, conjunction, negation, and the constant for the absurd, but they would each have their own existential quantifier, disjunction, and implication, with different meanings.

We extended this discussion to alethic K-modalities: using Simpson's meta-logical characterization, necessity is shown to be independent of the viewer, while possibility can be either intuitionistic or classical [1].

We furthermore proposed an internal and pure calculus for ecumenical modalities, where every basic object of the calculus can be read as a formula in the language of the ecumenical modal logic [2, 3].

References

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