



## Notational equivalence in tonal geometry

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### Summary

This paper employs a computational framework to demonstrate that two competing feature-geometric models of tonal representation are notationally equivalent. A model-theoretic analysis of these structures using a low-complexity logic yields two main results. First, the current study demonstrates that the models do not differ in their empirical coverage of assimilatory tone-sandhi processes in Chinese dialects, contrary to previous claims. Second, the models are shown to be bi-interpretable (using a more restrictive definition of bi-interpretability than earlier studies), thus providing a formally rigorous demonstration that the differences between the structures of the models are superficial, rather than substantive. The computational characterisation pursued here is well suited to questions of notational equivalence, because it allows for a principled comparison of the empirical coverage and structural content of two models using a single formalism.

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