Comparison with Halting Problem

Does x have a band presentation of k bands?

- If a presentation exists, the search will terminate.

- If the search runs for a long time, it may not exist, or we haven't waited long enough to find one.

- Given an upper bound on the conjugate length, we could conclude it doesn't exist after considering those bands.

- Such a bound exists.

- Possibly computable?

Does a Turing machine terminate on a given input?

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- It is not computable. (grows too large)

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Templated Search

- Make band presentation search practical.
- Uses braid quotients to *enumerate* fewer band presentations.