Templated search

- Generate each band β having maximum conjugate length $l = 3$. Place in set $C_{\phi(\beta)}$

- Construct each 3-template for x:
  - $-(13), -(12), +(12), \quad +(12), -(13), -(23)$, … (27 total)

- Consider only the bands which match the template in each position:
  - $(b_1, b_2, b_3) \in C_{-(13)} \times C_{-(12)} \times C_{+(12)}$
  - $|C_{-(13)}||C_{-(12)}||C_{+(12)}| = 810$
- Fewer than $27{,}000$ total braids to compare.

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Results

- Found 5 band presentations for x including:
  - $(\bar{2}\bar{2}1\bar{2}\bar{1}22)(3\bar{1}2\bar{3}\bar{2}1\bar{3})(\bar{1}\bar{1}\bar{1}2111) = \bar{2}\bar{2}1\bar{2}1$