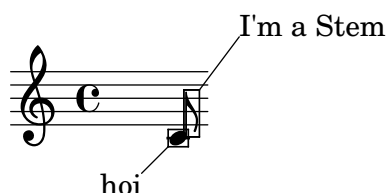# New features since 2.8

- `lilypond-book` supports DocBook too.

  This feature was contributed by Bertalan Fodor.

- Balloon texts can be entered more ergonomically, and are no longer clipped from the output.
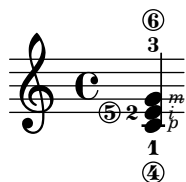
- Slurs now avoid clefs and key changes.

- The `FretBoards` context will generate guitar frettings automatically,

  `\new FretBoards { <d\5 fis a d fis> }`

  This feature was sponsored by Rick Hansen.

- Horizontal and vertical spacing are now done at the same time so that pages are filled more evenly.

- The page breaking algorithm is capable of detecting page turns and formatting the music accordingly.

- Guitar right hand fingerings may now also be added,

  This feature was sponsored by William Wilson.

- By defining a clip region, a cutout EPS file of a number of measures may be generated from the complete score. Hence, it is no longer necessary to create separate files to create extracts of (long) scores. An example is shown in 'input/regression/clip-systems.ly'.

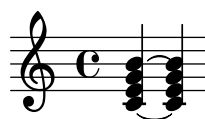 This feature was sponsored by Rick Hansen.

- Lyric texts may include tie symbols by using the ~ symbol,

o la‿oo ah

- Calculation of note head durations is now softcoded.

- Chords can now be partially tied,

This feature was sponsored by Steve Doonan.
- Lyric extenders now have tunable padding.

This feature was sponsored by David Griffel.
- Instrument changes are better supported: names in the margin can be changed half-way during a staff, and cues are printed automatically.

This feature was sponsored by Kieren MacMillan.
- Barlines can be dashed now,

This feature was sponsored by Kieren MacMillan.
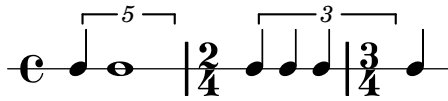- Grace notes may be forced to use floating spacing,

This feature was sponsored by Trevor Bača.

- Durations of grace notes are taken into account for spacing,

This feature was sponsored by Trevor Bača.

- Tuplet brackets can be made to run to prefatory matter or the next note

This feature was sponsored by Trevor Bača.

- Falls and doits can be added to notes

This feature was sponsored by Anthony Youngman and Paul Scott.

- `lilypond-book` now includes support for PDFTEX.

  This feature was sponsored by David Roundy.

- Nested tuplets can have different formatting for each nesting level,

This feature was sponsored by Trevor Bača.

- New sections with different spacing parameters can be started with `newSpacingSection`. This is useful when there are sections with a different notions of long and short notes.

  In the following example, the time signature change introduces a new section, and hence the 16ths notes are spaced wider.
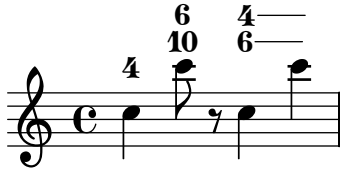
This feature was sponsored by Trevor Bača, Michael Meixner and Vivian Barty-Taylor.

- A new, automated testing technique has been added. It will detect changes in the formatting automatically, which will make it easier to spot regression errors in the future.

  View test results.

- Figured bass can also be added to `Staff` contexts directly. In this case, their vertical position is adjusted automatically.

  This feature was sponsored by Trent Johnston.

- Beams may be put on isolated stems, and beamlets may be paired by setting the `max-beam-connect` property,

  This feature was sponsored by Trevor Bača.

- Beaming patterns obey the `beatGrouping` property.

  This feature was sponsored by Trevor Bača.

- With the command `\transposedCueDuring` a cue's transposition can be changed locally. This can be used to prevent excessive ledger lines on cues.
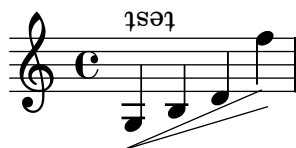
  This feature was contributed by Werner Lemberg

- By setting `hairpinToBarline`, hairpins will stop at the barline preceding the ending note.

This feature was sponsored by Andrew Sidwell and Trevor Bača.

- Objects may be rotated using the `rotation` property.

This feature was contributed by Erlend Aasland.

- Hairpins now support circled tips (al niente notation).

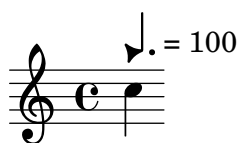This feature was contributed by Erlend Aasland.

- The MusicXML convertor has been sped up, and has rudimentary support for percussion notation. It will also condense multi-bar rests to enable part extraction.
- The beam printing code has been completely rewritten, and now includes support for feathered beaming,

Known bug: the \featherDuration command only works with very short music snippets.

This feature was sponsored by Jamie Bullock.

- The \note markup command now also accepts note head styles.

This feature was sponsored by Jamie Bullock.

- Tie chord formatting also works with arpegiated ties.

This feature was sponsored by Steve Doonan.