The univie-ling-poster class

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Abstract

The univie-ling-poster class provides a LaTeX 2ε class suitable for scientific posters in class or at conferences. The class adheres to the corporate design of the University of Vienna.[1] Therefore, although this class has been written for students in the Department of Linguistics, it might also be useful for other fields and for students and researchers alike. This manual documents the class.

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*Please report issues via `https://codeberg.org/jspitz/univie-ling`.

[1] `https://communications.univie.ac.at/fileadmin/user_upload/d_oeffentlichkeitsarbeit/Dokumente/UniversitaetWien_CD_Manual_Mai_2022_interaktiv.pdf`.

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1 Aims and scope

The univie-ling-poster class provides a template for scientific posters that follows the corporate design of University of Vienna, using the logo of the university and employing the design recommendations for (non-scientific) posters (regarding fonts, colors, and layout).

Posters are a meanwhile established genre for knowledge transfer. They are used, above all, to present research in a condensed form (in so-called 'poster sessions'). As opposed to other academic genres, they should be 'catchy' and quickly consumable. Hence, they are heavily graphic-based.

This class aims to help creating a 'catchy' but coherently designed poster which presents information in graphically segmented, easily navigatable chunks. It supports posters from A0 to A4 format in landscape and portrait orientation, eases the use of multiple columns and provides a range of colored boxes for the presentation of information chunks, thereby again following the color scheme of University of Vienna corporate design.

The class builds on beamerposter, a LaTeX package that uses the beamer class to generate posters [4].

2 Requirements of univie-ling-poster

The following class and packages are required and loaded by univie-ling-poster:

- beamer: Beamer class (base class).
- beamerposter: Unsing beamer for scientific posters.
- csquotes: Context sensitive quotations.
- graphicx: Graphic support.
- geometry: Page layout settings.
- isodate: Format URL dates.
- l3keys: Key-value interface for class options.
- translator: Localization machinery.
- url: Support for typesetting URLs.
- tikzpagenodes: Page measuring (for accessibility).

The following packages are required for specific features and loaded by default. However, the loading can be individually and generally omitted (see sec. 4):

- sourceserifpro: Default serif font (*Source Serif Pro*).
- sourcesanspro: Default sans serif font (*Source Sans Pro*).

- sourcecodepro: Default monospaced font (*Source Code Pro*).
- tcolorbox: Fancy colored boxes.
- babel: Multilingual support.
- biblatex: Contemporary bibliography support.
- caption: Caption layout adjustments.
- covington: Support for linguistic examples/glosses.
- fontenc: Set the font encoding for PostScript fonts. Loaded with option **`T1`**.
- microtype: Micro-typographic adjustments.
- prettyref: Verbose cross-references.
- tcolorbox: Fancy colored boxes.

The following packages are required for optional features (not used by default):

- biblatex-apa: APA style for biblatex.
- draftwatermark: Create a draft mark.
- fontspec: Load OpenType fonts (with LuaTeX or XeTeX).
- polyglossia: Multi-language and script support.

3 Fonts

The class uses, by default, PostScript (a. k. a. Type 1) fonts and thus requires classic (PDF)LaTeX. Optionally, however, you can also use OpenType fonts via the fontspec package and the XeTeX or LuaTeX engine instead. In order to do this, use the class option **`fonts=otf`** (see sec. 4 for details).

In both cases, the class uses by default *Source Serif Pro* as a serif font, *Source Sans Pro* as a sans serif font, and *Source Code Pro* as a monospaced (typewriter) font. This font is included in most LaTeX distributions by default. If you use **`fonts=otf`** with XeTeX, you just have to make sure that you have the fonts *Source Serif Pro*, *Source Sans Pro* and *Source Code Pro* installed on your operating system (with exactly these names!).

Note that by default, with PostScript fonts, univie-ling-poster also loads the fontenc package with T1 font encoding, but this can be customized (see sec. 4 for details).

If you want (or need) to load all fonts and font encodings manually, you can switch off all automatic loading of fonts and font encodings by the class option **`fonts=none`** (see sec. 4).

4 Class Options

The univie-ling-poster class provides a range of key=value type options to control the font handling, package loading and some specific behavior. These are documented in this section.

4.1 Font selection

As elaborated above, the class supports PostScript fonts (via LaTeX and PDFLaTeX) as well as OpenType fonts (via XeTeX and LuaTeX). PostScript is the traditional LaTeX font format. Specific LaTeX packages and metrics files are needed to use the fonts (but all fonts needed to use this class should be included in your LaTeX distribution and thus ready to use). OpenType fonts, by contrast, are taken directly from the operating system. They usually provide a wider range of glyphs, which might be a crucial factor for a linguistic poster. However, they can only be used by newer TeX engines such as XeTeX and LuaTeX.

The class provides the following option to set the font handling:

> **`fonts=ps|otf|none`**: if **`ps`** is selected, PostScript fonts are used (this is the default and the correct choice if you use LaTeX or PDFLaTeX); if **`otf`** is selected, OpenType fonts are used, the class loads the fontspec package, sets *Source Serif Pro* as main font, *Source Sans Pro* as sans serif font, and *Source Code Pro* as monospaced font (this is the correct choice if you use XeTeX or LuaTeX; make sure you have the respective fonts installed on your system); if **`none`** is selected, finally, the class will not load any font package at all, and neither fontenc (this choice is useful if you want to control the font handling completely yourself).

The base font size can be set via

> **`fontsize=<size>`**

With PostScript fonts, univie-ling-poster also loads the fontenc package with T1 font encoding, which is suitable for most Western European (and some Eastern European) writing systems. In order to load different, or more, encodings, the class option

> **`fontenc=<encoding(s)>`** can be used (e. g., **`fontenc={T1,X2}`**). With **`fontenc=none`**, the loading of the fontenc package can be prevented. The package is also not loaded with **`fonts=none`**.

4.2 Layout settings

The following layout options are available

> **`cd=german|english`** Select either German or English corporate design (independent of the document language). This currently only affects the department name.
>
> **`pagesize=a0|a1|a2|a3|a4`** Set the page size. Default is `a0`.
>
> **`portrait=true|false`** Set the poster to portrait format (default is landscape). This also adjusts the logo positioning.
>
> **`scale=<double>`** Scales the contents of the poster. The default is `1.4`.
>
> **`smallmargins=true|false`** By default, and following the corporate design, posters have a larger left margin that make the poster title and text align with the logo. If you need more space or do prefer equal left and right margin sizes, set this to true.

4.3 Language setting

By default, the univie-ling-poster loads the babel package. In order to set the language(s) of your poster, you should pass them as class options, using the main language last (e. g., `german, english`). The class provides some predefined strings for German and English (if you want to add other languages, feel free to contact me).

If you need polyglossia rather than babel for language support, please do not use the package yourself, but rather use the package option **`polyglossia=true`**. This assures correct loading order. This also presets **`fonts=otf`**. With polyglossia, languages are setup by means of dedicated commands (`\setmainlanguage`, `\setotherlanguage`).

4.4 Package loading

Most of the extra features provided by the class can be switched off. This might be useful if you do not need the respective feature anyway, and crucial if you need an alternative package that conflicts with one of the preloaded package.

All following options are **`true`** by default. They can be switched off one-by-one via the value **`false`**, or altogether, by means of the special option **`all=false`**. You can also switch selected packages on/off again after this option (e. g., **`all=false,microtype=true`** will switch off all packages except microtype).

`apa=true|false`: If **`true`**, the biblatex-apa style is used when biblatex is loaded. By default, the included univie-ling style is loaded, instead. See sec. 7.2 for details.

`biblatex=true|false`: If **`false`**, biblatex is not loaded. This is useful if you prefer BibTEX over biblatex, but also if you neither want to use the preloaded univie-ling style nor the alternative biblatex-apa style (i. e., if you want to load biblatex manually with different options). See sec. 7.2 for details.

`caption=true|false`: If **`false`**, the caption package is not loaded. This affects the caption layout.

`covington=true|false`: If **`false`**, covington is not loaded. Covington is used for numbered examples. Note that loading covington via this option renames beamer's own example environments. See sec. 7.1.

`microtype=true|false`: If **`false`**, microtype is not loaded.

`ref=true|false`: If **`false`**, prettyref is not loaded and the string (re)definitions of the class (concerning verbose cross references) are omitted.

`tcolorbox=true|false`: If **`false`**, tcolorbox is not loaded. Not that in this case, the framed boxes are not available.

4.5 Draft mode

The option **`draftmark=true|false`** allows you to mark your document as a draft, which is indicated by a watermark (including the current date). This might be useful when sharing preliminary versions with your supervisor.

5 Titling and author data

In this section, it is explained how to input the title and author information that should be printed on the poster. This information is automatically set, given that you have specified the following data in the preamble.

5.1 Author-related data and poster title

`\author[<in footline>]{<in title>}`: Name of the poster's author as it appears in the title and in the footline. If you want to omit either of them, just pass an empty argument.

`\title{<title>}`: Poster title.

`\subtitle{<subtitle>}`: Poster subtitle.

`\date{<date>}`: Date of the poster presentation (printed in the foot line).

`\department{<name>}`: Name of the department (*Department of Linguistics* or *Institut für Sprachwissenschaft*, dependent on the `cd` option, is preset).

Other contact data should be presented in a box on the poster.

5.2 Presentation-related data

`\eventtitle{<title>}`: Title of the event where the poster is presented.

`\eventlocation{<location>}`: Location of the event where the poster is presented.

`\eventdate{<date>}`: Date of the event where the poster is presented (this might cover more days than the poster presentation date, or be a whole term).

`\eventlogo{<logo data>}`: Logo of the event. This can be an arbitrary text or a command that loads a graphic (e.g., `\includegraphics` or `\pgfuseimage`). You need to take care that the logo is properly scaled to fit the poster headline.

The presentation-related data is printed in the poster headline, right to the University logo. By default, if a logo is specified, it is printed on the first line, then a line with the event title follows, a third line holds location and date.

This can be modified by changing the separators between the respective elements, which are by default:

- `\def\uvpt@logo@event@sep{\\[.5em]}` – separation of logo and event title (line break by default)
- `\def\uvpt@event@location@sep{\\[.5em]}` – separation of event title and location (line break by default)
- `\def\uvpt@location@date@sep{ $\cdot$ }` – separation of event location and date (centered dot by default)

Note that you need to embrace redefinitions in `\makeatletter` and `\makeatother`.

6 Poster content

Basically, the poster is nothing more than a beamer slide (of unusual size) and mainly for printout rather than projection.

Since the class builds on beamer, principally all elements provided by beamer can be used (although overlay elements do not make sense in printed output). In what follows, we describe the elements that are most important to posters.

6.1 The main frame

A poster is set up as one single beamer frame without frame title. So each poster body is embraced in

```
\begin{frame}
...
\end{frame}
```

6.2 Columns

Within this frame, it is usually advisable to use multiple columns due to the large size of posters, since text lines should not be too long to be easily readable (40 characters is a good threshold). Given this, landscape posters usually have more columns than portrait ones.

Columns can be set up by using beamer's column framework:

```
\begin{columns}[t, totalwidth=\textwidth]
        % First column, 48% text width
        \column{.48\textwidth}
        <content>
        % Second column, 48% text width
        \column{.48\textwidth}
        <content>
        ...
\end{columns}
```

The option, `t`, thereby assures that the columns are top-aligned within the centered main frame, `totalwidth=\textwidth` is needed to have the proper column span (without this option, the columns will stick into the left margin).

You can freely use columns on your poster, having single-column parts next to two or more columns in turn. Please refer to the templates for an example.

6.3 Boxes

It is established practice to use boxes to present poster sections. This class provides two types of boxes, each in three colors, blue, red, and green (from the color palette of University of Vienna corporate design).

The first box type employs a simplistic design that just colors the headline and indents the box content (this draws on beamer color boxes), the second one draws

a colored frame around the box content and also uses a pale background color (this draws on tcolorbox and is only available if the option `tcolorbox` is not set to false).

The first-type boxes can be accessed via

- `\begin{bluebox}{Box Title}...\end{bluebox}`
- `\begin{redbox}{Box Title}...\end{redbox}`
- `\begin{greenbox}{Box Title}...\end{greenbox}`

The second type is available via

- `\begin{blueframedbox}{Box Title}...\end{blueframedbox}`
- `\begin{redframedbox}{Box Title}...\end{redframedbox}`
- `\begin{greenframedbox}{Box Title}...\end{greenframedbox}`

The framed boxes provide some more features than the normal ones, e.g., a separated lower box part (right aligned and with smaller font), started by `\tcblower`. Please refer to the tcolorbox manual [7] for details.

Our advise is that you use colors carefully. Do not just use them to make your poster look colorful, but assign them with semantic meaning, e. g., by using blue for general information, green for examples, and red for particularly important information.

If you need more fancy boxes, check out the mighty possibilities of tcolorbox [7]. If you need to widen the color range, you can do so by defining your own `beamercolorbox` or `tcolorbox` (see beamer and tcolorbox manuals for details). We advise you to align with the color palette of the corporate design.[2]

6.4 Semantic markup

The class defines some basic semantic markup common in linguistics:

`\Expression{<text>}`: To mark expressions (object language). Typeset in *italics*.

`\Concept{<text>}`: To mark concepts. Typeset in SMALL CAPITALS.

`\Meaning{<text>}`: To mark meaning. Typeset in ‘single quotation marks’.

You can redefine each of these commands, if needed, like this:

```
\renewcommand*\Expression[1]{\textit{#1}}
\renewcommand*\Concept[1]{\textsc{#1}}
\renewcommand*\Meaning[1]{\enquote*{#1}}
```

6.5 Bigger text

Since texts on posters might be larger than usual, the class provides three size layer beyond `\Huge`, namely (in increasing size): `\veryHuge`, `\VeryHuge`, and `\VERYHuge`. Like the legacy size commands, these are switches.

[2] https://communications.univie.ac.at/fileadmin/user_upload/d_oeffentlichkeitsarbeit/Dokumente/UniversitaetWien_CD_Manual_Mai_2022_interaktiv.pdf.

7 Hyperlinks

It is good practice to always give last access dates to web links (URLs). To make this easier, univie-ling-poster provides a number of convenience macros. To begin with, you can easily enter URLs with the last date you accessed the site with the function

```
\weblink{<URL>}[<date>]
```

This will format the date in the preferred way ("[last accessed: <date>]"), localized to English or German. The argument can be given in the form YYYY-MM-DD, DD/MM/YYYY, or DD.MM.YYYY, e.g.

```
\weblink{https://linguistics.univie.ac.at}[27/06/2024]
```

will print: https://linguistics.univie.ac.at [last accessed: 27/06/2024]. If you do not give the optional date argument, no date is printed unless you have specified a general last access date by means of the function

```
\SetURLDate{<date>}
```

which takes the same date format as argument. This function might come in handy if you have the same access date for all, or many, URLs. And it lets you update all URL access dates with a single change.

For hyperlinks without date, you can also use the legacy command **\url{<URL>}**. To output the date information only, you can use the macro **\urldate{<date>}**.

7.1 Linguistic examples and glosses

The class automatically loads the covington package which provides macros for examples and glosses. Please refer to the covington manual [1] for details.

Note: The beamer class (which is the base of the poster class used here) defines it own `example` and `examples` environments which clash with covington's. Since the latter are more common on a linguistics poster, the former are renamed by the poster class to **beamerexample** and **beamerexamples**, respectively, unless you use the class option **covington=false**. I. e., you can use **example** and **examples** or its aliases, **covexample** and **covexamples**, for linguistic examples on your poster by default.

7.2 Bibliography

You can use the usual LaTeX means – the bibliography environment, BibTeX or biblatex – to generate a bibliography and references on your poster. This class assumes you use biblatex, which is preloaded with the style common in Applied Linguistics at the University of Vienna. See sec. 7.2.3 on how to opt out of this preselection.

7.2.1 Default bibliography style (*Unified Style for Linguistics*)

By default, the univie-ling-poster class loads a bibliography style which matches the conventions that are recommended by the Applied Linguistics staff of the department.[3]

[3] See http://www.spitzmueller.org/docs/Zitierkonventionen.pdf

These conventions draw on the *Unified Style Sheet for Linguistics* of the LSA (*Linguistic Society of America*), a style that is also quite common in General Linguistics nowadays. In order to conform to this style, the univie-ling-poster class uses the biblatex package with the univie-ling style that is included in the univie-ling-poster package.

If you are in Applied Linguistics, using the default style is highly recommended. The style recommended until 2017, namely APA/DGPs, is also still supported, but its use is no longer encouraged; see sec. 7.2.2 for details. If you want/need to use a different style, please refer to section 7.2.3 for instructions.

7.2.2 Using APA/DGPs style

Until 2017, rather than the Unified Style, the Applied Linguistics staff recommended conventions that drew on the citation style guide of the APA (*American Psychological Association*) and its adaptation for German by the DGPs (*Deutsche Gesellschaft für Psychologie*).

For backwards compatibility reasons, this style is still supported (though not recommended). You can enable it with the package option **`apa=true`**.

If you want to use APA/DGPs style, consider the following caveats.

- For full conformance with the APA/DGPs conventions (particularly with regard to the rather tricky handling of "and" vs. "&" in- and outside of parentheses), it is mandatory that you adequately use the respective biblatex(-apa) citation commands: Use `\textcite` for all inline citations and `\parencite` for all parenthesized citations (instead of manually wrapping `\cite` in parentheses). If you cannot avoid manually set parentheses that contain citations, use `\nptextcite` (a biblatex-apa-specific command) inside them.[4] For quotations, it is recommended to use the quotation macros/environments provided by the csquotes package (which is preloaded by univie-ling-poster anyway); the univie-ling-poster class assures that citations are correct if you use the optional arguments of those commands/macros in order to insert references.

- The biblatex-apa style automatically lowercases English titles. This conforms to the APA (and DGPs) conventions, which favour "sentence casing" over "title casing". English titles, from biblatex's point of view, are titles of bibliographic entries that are either coded as **`english`** via the **`LangID`** entry field or that have no **`LangID`** coding but appear in an English document (i. e., a document with main language English). Consequently, if the document's main language is English, all non-English entries need to be linguistically coded (via **`LangID`**) in order to prevent erroneous lowercasing, since biblatex assumes that non-identified entries use the main language (hence, such a classification is also important for correct hyphenation of the entries).
  Note that up to biblatex 3.3, the document language was not taken into account by the lowercasing automatism and all non-classified entries were treated like English entries (and thus lowercased), notwithstanding the main language; therefore, any entry needed to be coded. Even if this misbehaviour is fixed as

[4] Please refer to [6] and [2] for detailed instructions.

of biblatex 3.4, it is still advisable to systematically set the proper **LangID**, since this is a prerequisite for a correct multilingual bibliography.

- The lowercasing automatism described above cannot deal properly with manual punctuation inside titles. Hence, a title such as `Maintitle. A subtitle` will come out as *Main title. a subtitle*. There are several ways to avoid that. The most proper one is to use the title and subtitle fields rather than adding everything to title. Alternatively, everything that is nested inside braces will not get lowercased, i. e. `Maintitle. {A} subtitle` will produce the correct result. This trick is also needed for names and other elements that should not get lowercased (`Introduction to {Germanic} linguistics`). However, please do not configure your BibTeX editor to generally embrace titles (this is a feature provided by many editors) since this will prevent biblatex-apa from lowercasing at places where it should be done.
- The biblatex-apa style requires that you use biber as a bibliography processor instead of bibtex (the program). See [5] for details.

7.2.3 Using a different style

If you do not want or are not supposed to use neither the default Unified nor the APA/DGPs style, you can disable automatic biblatex loading via the class option **biblatex=false** (see sec. 4.4). In this case, you will need to load your own style manually, by entering the respective biblatex or BibTEX commands.

One case where you need to do that is if you prefer classic BibTEX over biblatex. If you want to follow the Applied Linguistics conventions, but prefer classic BibTEX over biblatex, a BibTEX style file unified.bst that implements the *Unified Style Sheet for Linguistics* is available on the Internet.[5] Note, though, that this package does not have specific support for German, so it is only really suitable if you write in English. Thus, if you want to follow the Applied Linguistics conventions, it is strongly recommended that you use biblatex with the preloaded univie-ling style.

7.2.4 Heading

On posters, you sometimes want a different heading over the references (e. g., *Selected Literature*). This can be easily done via the macro **\Bibheading{<title>}** which works with biblatex and normal bibliography environment.

8 Further instructions

8.1 Commands and environments

Since the class draws on beamer, you can use all commands and environments provided by beamer in order to structure and typeset your document. Please refer to the comprehensive beamer manual [3] for information.

[5] `http://celxj.org/downloads/unified.bst`

Please also refer to the template files included in the package for some further usage instructions and hints.

8.2 Accessibility helpers

For visually impaired users, setting up posters is quite a challenge, as LaTeX does not really give you good feedback on whether the poster is filled evenly, or even in the crucial case if the text overruns the poster page. In the latter case, you could watch out for *overfull vbox* warnings, but these are quite ambiguous.

To enhance accessibility in this regard, univie-ling-poster provides the following helper function:

`\restspace[<label>]`

If you insert this to your poster, it will tell you through a package warning in the log file how many normal lines there are still available (in the current column, if you are using columns) after the point where the command has been inserted:

> "Package univie-ling-poster warning: Remaining space: <n> normal lines"
> (with <n> being the actual number of lines)

With *normal lines*, the warning refers to lines in the normal font size of running text. In the warning, the package also provides you with its own evaluation on how to deal with the result. Either of these four verdicts will be given:

1. "Good, still space left": poster/column is not full yet, you can safely add more text (more than one normal line left).
2. "All good, but this is full now": poster/column is filled, and not too crowded, but you should not add more text (one line more will make it look less good).
3. "It is still OK, but the poster is quite full": The content already touches the footer line. If you don't have space available in other columns and need all text, you can keep this, but it will probably look a bit crowded. So if you can, re-arrange (take out at least one line).
4. "Text exceeds poster! You need to re-arrange the content": If you get this warning, text runs out of the poster page, and you definitely need to fix that.

The optional argument of the macro allows you to set an arbitrary label which is used in the warning. This might be helpful if you use multiple `\restspace` macros (e. g., in multiple columns). So if you insert, for instance `\restspace[1]`, the warning will read "Remaining space (1): <n> normal lines".

Note that `\restspace` should always be the last element in the column or the text. This means that if you are using boxes, set the macro *after* the end of the box, not within the box.

Note further that the `\restspace` macro does not print anything on the poster itself, so you can safely keep them in the published version.

8.3 LyX layouts and templates

A layout for LyX[6] can be retrieved from `https://codeberg.org/jspitz/univie-ling/raw/branch/master/lyx/layouts/univie-ling-poster.layout`.

Templates are provided as well:

- English template:
  `https://codeberg.org/jspitz/univie-ling/raw/branch/master/lyx/templates/template-univie-ling-poster-english.lyx`
- German template:
  `https://codeberg.org/jspitz/univie-ling/raw/branch/master/lyx/templates/template-univie-ling-poster-deutsch.lyx`

9 Release History

2024/07/23 (v. 2.7)

- Fix spacing after `\weblink`.
- Fix empty argument check in `\weblink`.

2024/06/27 (v. 2.6)

- Provide **`\weblink`**, **`\SetURLDate`** and **`\urldate`** macros.
- Add **`smallmargins`** class option.

2024/05/09 (v. 2.5)

- Add `\restspace` accessibility helper function.

2023/03/31 (v. 2.4)

- No change to this class.

2023/01/26 (v. 2.3)

- Initial release.

References

[1] Covington, Michael A. and Spitzmüller, Jürgen: *The covington Package. Macros for Linguistics*. September 7, 2018. `http://www.ctan.org/pkg/covington`.

[2] Kime, Philip: *APA BibLaTeX style. Citation and References macros for BibLaTeX*. March 3, 2016. `http://www.ctan.org/pkg/biblatex-apa`.

[3] Till Tantau, Joseph Wright and Vedran Miletić (2022): *beamer – A LaTeX class for producing presentations and slides*. URL: `http://www.ctan.org/pkg/beamer`.

[6] See `https://www.lyx.org`.

[4] Thomas Deselaers and Philippe Dreuw (2018): *beamerposter – Extend beamer and aoposter for custom sized posters*. URL: https://ctan.org/pkg/beamerposter.

[5] Kime, Philip and Charette, François: *Biber. A backend bibliography processor for biblatex*. March 6, 2016. http://www.ctan.org/pkg/biber.

[6] Lehman, Philipp (with Audrey Boruvka, Philip Kime and Joseph Wright): *The biblatex Package. Programmable Bibliographies and Citations*. March 3, 2016. http://www.ctan.org/pkg/biblatex.

[7] Thomas F. Sturm (2022): *tcolorbox – Coloured boxes, for LaTeX examples and theorems, etc*. https://ctan.org/pkg/tcolorbox.