

pubmatter

A typst library for parsing and showing publication frontmatter

Rowan Cockett^{1,2}  

¹Curvenote Inc., ²Executable Books

Abstract

Utilities for loading and working with authors, affiliations, abstracts, keywords and other frontmatter information common in scientific publications.

Our goal is to introduce standardized ways of working with this content to expose metadata to scientific publishers who are interested in using typst in a standardized way. The specification for this pubmatter is based on MyST Markdown and Quarto, and can load their YAML files directly.

Keywords typst package, open-science, standards

Loading Frontmatter

The frontmatter can contain all information for an article, including title, authors, affiliations, abstracts and keywords. These are then normalized into a standardized format that can be used with a number of show functions like `show-authors`. For example, we might have a YAML file that looks like this:

```
author: Rowan Cockett
date: 2024/01/26
```

You can load that file with `yaml`, and pass it to the `load` function:

```
#let fm = pubmatter.load(yaml("pubmatter.yaml"))
```

This will give you a normalized data-structure that can be used with the `show` functions for showing various parts of a document.

You can also use a dictionary directly:

```
#let fm = load((
  author: (
    (
      name: "Rowan Cockett",
      email: "rowan@curvenote.com",
      orcid: "0000-0002-7859-8394",
      affiliations: "Curvenote Inc.",
    ),
  ),
  date: datetime(year: 2024, month: 01, day: 26),
  doi: "10.1190/tle35080703.1",
))
#show-author-block(fm)
```

Rowan Cockett¹  

¹Curvenote Inc.

Normalized Frontmatter Object

The frontmatter object has the following normalized structure:

```

title: content
subtitle: content
short-title: string          # alias: running-title, running-head
# Authors Array
# simple string provided for author is turned into ((name: string),)
authors:                     # alias: author
  - name: string
    url: string              # alias: website, homepage
    email: string
    phone: string
    fax: string
    orcid: string           # alias: ORCID
    note: string
    corresponding: boolean  # default: `true` when email set
    equal-contributor: boolean # alias: equalContributor, equal_contributor
    deceased: boolean
    roles: string[]         # must be a contributor role
    affiliations:           # alias: affiliation
      - id: string
        index: number
# Affiliations Array
affiliations:                # alias: affiliation
  - string                   # simple string is turned into (name: string)
  - id: string
    index: number
    name: string
    institution: string      # use either name or institution
# Other publication metadata
open-access: boolean
doi: string                  # must be only the ID, not the full URL
date: datetime               # validates from 'YYYY-MM-DD' if a string
citation: content
# Abstracts Array
# content is turned into ((title: "Abstract", content: string),)
abstracts:                   # alias: abstract
  - title: content
    content: content

```

Note that you will usually write the affiliations directly in line, in the following example, we can see that the output is a normalized affiliation object what is linked by the `id` of the affiliation (just the name if it is a string!).

```
#let fm = load((
  authors: (
    (
      name: "Rowan Cockett",
      affiliations: "Curvenote Inc.",
    ),
    (
      name: "Steve Purves",
      affiliations: ("Executable Books", "Curvenote Inc."),
    ),
  ),
))
#raw(lang:"yaml", yaml.encode(fm))
```

```
authors:
- name: Rowan Cockett
  affiliations:
  - id: Curvenote Inc.
    index: 1
- name: Steve Purves
  affiliations:
  - id: Executable Books
    index: 2
  - id: Curvenote Inc.
    index: 1
affiliations:
- name: Curvenote Inc.
  id: Curvenote Inc.
  index: 1
- name: Executable Books
  id: Executable Books
  index: 2
date: 'datetime(year: 2024, month: 1, day: 26)'
citation: Cockett & Purves, 2024
```

API Documentation

pubmatter

- doi-link()
- email-link()
- github-link()
- open-access-link()
- orcid-link()
- show-abstract-block()
- show-abstracts()
- show-affiliations()
- show-author-block()
- show-authors()
- show-keywords()
- show-page-footer()
- show-page-header()
- show-spaced-content()
- show-title()
- show-title-block()

doi-link

Create a DOI link

```
#doi-link(doi: "10.1190/tle35080703.1")
https://doi.org/10.1190/tle35080703.1
```

Parameters

doi-link(doi: str) -> content

doi str

Only include the DOI identifier, not the URL

Default: none

email-link

Create a mailto link with an email icon

```
#email-link(email: "rowan@curvenote.com")
```



Parameters

email-link(email: str) -> content

email str

Email as a string

Default: none

github-link

Create a link to a GitHub profile with the GitHub icon.

```
#github-link(github: "rowanc1")
```



Parameters

```
github-link(github: str) -> content
```

github str

GitHub username (no @)

Default: *none*

open-access-link

Create a link to Wikipedia with an OpenAccess icon.

```
#open-access-link()
```



Parameters

```
open-access-link() -> content
```

orcid-link

Create a ORCID link with an ORCID logo

```
#orcid-link(orcid: "0000-0002-7859-8394")
```



Parameters

```
orcid-link(orcid: str) -> content
```

orcid str

Use an ORCID identifier with no URL, e.g. 0000-0000-0000-0000

Default: *none*

show-abstract-block

Show abstract-block

`#show-abstract-block(fm)`

Abstract

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Keywords typst package, open-science, standards

Parameters

`show-abstract-block(fm: fm) -> content`**fm** fm

The frontmatter object

show-abstracts

Show abstracts

`#show-abstracts(fm)`

Abstract

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Parameters

`show-abstracts(fm: fm) -> content`**fm** fm

The frontmatter object

show-affiliations

Show affiliations

`#show-affiliations(affiliations)`

¹Curvenote Inc., ²Executable Books

Parameters

```
show-affiliations(
  size: length,
  fill: color,
  affiliations: fm array
) -> content
```

size `length`

Size of the affiliations text

Default: `8pt`**fill** `color`

Color of of the affiliations text

Default: `gray.darken(50%)`**affiliations** `fm` or `array`

The frontmatter object or affiliations directly

show-author-block

Show author block

`#show-author-block(fm)`**Rowan Cockett**^{1,2}   ¹Curvenote Inc., ²Executable Books

Parameters

`show-author-block(fm: fm) -> content`**fm** `fm`

The frontmatter object

show-authors

Show authors

`#show-authors(authors)`**Rowan Cockett**^{1,2}   

Parameters

```
show-authors(
  size: length,
  weight: weight,
  show-affiliations: boolean,
  show-orcid: boolean,
  show-email: boolean,
  show-github: boolean,
  authors: fm array
) -> content
```

size length

Size of the author text

Default: 10pt

weight weight

Weight of the author text

Default: "semibold"

show-affiliations boolean

Show affiliations text

Default: true

show-orcid boolean

Show orcid logo

Default: true

show-email boolean

Show email logo

Default: true

show-github boolean

Show github logo

Default: true

authors fm or array

The frontmatter object or authors directly

show-keywords

Show keywords

```
#show-keywords(fm)
```

Keywords typst package, open-science, standards

Parameters

`show-keywords(fm: fm) -> content`

fm fm

The frontmatter object

show-page-footer

Show page footer

`#show-page-footer(fm)`

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Parameters

`show-page-footer(fm: fm) -> content`

fm fm

The frontmatter object

show-page-header

Show page header

`#show-page-header(theme: (font: "Noto Sans"), fm)`

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Parameters

`show-page-header(
 theme: theme,
 fm: fm
) -> content`

theme theme

The theme object, There is a bug in the first page state update, so theme must be passed directly. See #2987

Default: THEME

fm fm

The frontmatter object

show-spaced-content

Create a spaced content array separated with a spacer.

The default spacer is `|`, and undefined elements are removed.

```
#show-spaced-content(("Hello", "There"))
```

Hello | There

Parameters

```
show-spaced-content(
  spacer: content,
  content: array
) -> content
```

spacer content

How to join the content

Default: `text(fill: gray)[#h(8pt) | #h(8pt)]`

content array

The various things to going together

show-title

Show title

```
#show-title(fm)
```

pubmatter

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Parameters

```
show-title(fm: fm) -> content
```

fm fm

The frontmatter object

show-title-block

Show title block

```
#show-title-block(fm)
```

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Parameters

```
show-title-block(fm: fm) -> content
```

fm fm

The frontmatter object