Demo: Loading Macros via include shortcode

This page demonstrates the `include` shortcode strategy for loading macros into a Quarto document.

The `{{< include macros.qmd >}}` shortcode at the top of this file embeds the entire contents of `macros.qmd` inline at that point. Since `macros.qmd` contains only raw LaTeX macro definitions (`\def`, `\providecommand`, etc.), Quarto passes them through as raw LaTeX for PDF output (where they are processed inline in the document body as LaTeX commands) and as math for HTML/RevealJS output (where they are processed by MathJax).

> **Note:** This demo uses `macros.qmd` directly (same directory). When using this repository as a submodule, use `macros/macros.qmd` instead.

Example math

The table below uses macros defined with `\def` in `macros.qmd`. These macros work across all output formats:

Description	Code	Output
Greek: alpha	`$\a$`	α
Greek: beta	`$\b$`	β
Greek: gamma	`$\g$`	γ
Greek: lambda	`$\l$`	λ
Greek: sigma	`$\s$`	σ
Log-likelihood	`$\llik$`	ℓ
Independent	`$X \ind Y$`	$X \perp\!\!\!\perp Y$
IID distributed	`$X_i \siid \Normal(\m, \ss)$`	$X_i \sim_{\text{iid}} \text{N}(\mu, \sigma^2)$
Vector: mu	`$\vm$`	μ
Hat beta	`$\hb$`	$\hat{\beta}$
Sigma-algebra	`$\salg$`	$\mathcal{S}$
Borel sigma-algebra	`$\borel$`	$\mathcal{B}$

Color macros

`macros.qmd` defines a one-argument macro for each of the 19 LaTeX base colors (`\red`, `\blue`, `\green`, `\orange`, …), using the `\color` switch form (`{\color{red}{#1}}`), which is supported by MathJax (HTML/RevealJS), lualatex (PDF), and pandoc's texmath parser (docx):

Description	Code	Output
Red	`$\red{x}$`	$\red{x}$
Blue	`$\blue{y}$`	$\blue{y}$
Green	`$\green{z}$`	$\green{z}$
Orange	`$\orange{\mu}$`	$\orange{\mu}$
Combined	`$\red{x} + \blue{y} = \green{z}$`	$\red{x} + \blue{y} = \green{z}$
Nested macros	`$X_i \sim_{\red{\ind}} \blue{\Normal}(\orange{\mu_i}, \green{\ss})$`	$X_i \sim_{\red{\perp\!\!\!\perp}} \blue{\mathrm{N}}(\orange{\mu_i}, \green{\sigma^2})$

> **Note (docx):** pandoc converts these equations to native Word math without warnings, but its docx writer drops the color styling, so in Word the equations render correctly in the default text color.

`\providecommand` behavior in this shortcode demo

The macro `\floor` in `macros.qmd` is defined with `\providecommand`. Compare this with a `\def` macro:

Macro type	Code	Output
`\providecommand` macro (`\floor`)	`$\floor{1.2}$`	$\floor{1.2}$
`\def` macro (`\a`)	`$\a$`	$\a$

In this shortcode demo, both macros render in HTML/RevealJS. So in this setup, `\providecommand` from the included source is being handled correctly.

> **Note (RevealJS blank slide):** Content placed before the first `##` heading in RevealJS output becomes a blank title slide. Since the include shortcode is at the top of this file, RevealJS may show a blank slide before the first section. This is a known limitation of the shortcode approach for RevealJS. For RevealJS without a blank slide, use the `include-in-header` strategy instead.