Title Colour Palettes Based on the Scientific Colour-Maps
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Description

Colour choice in information visualisation is important in order to avoid being mislead by inherent bias in the used colour palette. The ‘scico’ package provides access to the perceptually uniform and colour-blindness friendly palettes developed by Fabio Crameri and released under the "Scientific Colour-Maps" moniker. The package contains 24 different palettes and includes both diverging and sequential types.

Author(s)

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See Also

Useful links:
• [https://github.com/thomasp85/scico](https://github.com/thomasp85/scico)
• Report bugs at [https://github.com/thomasp85/scico/issues](https://github.com/thomasp85/scico/issues)

Usage

```
scale_colour_scico(
  ..., alpha = NULL, begin = 0, end = 1, direction = 1, palette = "bilbao"
)
```
scale_color_scico(
  ...,
  alpha = NULL,
  begin = 0,
  end = 1,
  direction = 1,
  palette = "bilbao"
)

scale_fill_scico(
  ...,
  alpha = NULL,
  begin = 0,
  end = 1,
  direction = 1,
  palette = "bilbao"
)

scale_colour_scico_d(
  ...,
  alpha = 1,
  begin = 0,
  end = 1,
  direction = 1,
  palette = "batlow",
  aesthetics = "colour"
)

scale_color_scico_d(
  ...,
  alpha = 1,
  begin = 0,
  end = 1,
  direction = 1,
  palette = "batlow",
  aesthetics = "colour"
)

scale_fill_scico_d(
  ...,
  alpha = 1,
  begin = 0,
  end = 1,
  direction = 1,
  palette = "batlow",
  aesthetics = "fill"
)
Arguments

Arguments to pass on to `ggplot2::scale_colour_gradientn()`, `ggplot2::scale_fill_gradientn()` and `ggplot2::discrete_scale()`.

- **alpha**
  The opacity of the generated colours. If specified rgba values will be generated. The default (NULL) will generate rgb values which corresponds to alpha = 1.

- **begin**
  The interval within the palette to sample colours from. Defaults to 0 and 1 respectively.

- **end**
  The interval within the palette to sample colours from. Defaults to 0 and 1 respectively.

- **direction**
  Either 1 or -1. If -1 the palette will be reversed.

- **palette**
  The name of the palette to sample from. See `scico_palette_names()` for a list of possible names.

- **aesthetics**
  Character string or vector of character strings listing the name(s) of the aesthetic(s) that this scale works with. This can be useful, for example, to apply colour settings to the colour and fill aesthetics at the same time, via aesthetics = c("colour", "fill").

Value

A ScaleContinuous or ScaleDiscrete object that can be added to a ggplot object.

Examples

```r
if (require('ggplot2')) {
  volcano <-.data.frame(
    x = rep(seq_len(ncol(volcano)), each = nrow(volcano)),
    y = rep(seq_len(nrow(volcano)), ncol(volcano)),
    height = as.vector(volcano)
  )

  ggplot(volcano, aes(x = x, y = y, fill = height)) +
  geom_raster() +
  scale_fill_scico(palette = 'tokyo')

  ggplot(iris, aes(x=Petal.Width, y=Petal.Length)) +
  geom_point(aes(color=Species), size=10) +
  scale_colour_scico_d()
}
```
scico

Scientific colour map palettes

Description

This function constructs palettes of the specified size based on the colour maps developed by Fabio Crameri. It follows the same API style as viridis() from the viridisLite package so anyone familiar with this package can easily adapt to that.

Usage

scico(n, alpha = NULL, begin = 0, end = 1, direction = 1, palette = "bilbao")

Arguments

n
The number of colours to generate for the palette

alpha
The opacity of the generated colours. If specified rgba values will be generated. The default (NULL) will generate rgb values which corresponds to alpha = 1

begin, end
The interval within the palette to sample colours from. Defaults to 0 and 1 respectively

direction
Either 1 or -1. If -1 the palette will be reversed

palette
The name of the palette to sample from. See scico_palette_names() for a list of possible names

Value

A character vector of length n with hexencoded rgb(a) colour values

References

http://www.fabiocrameri.ch/colourmaps.php


Examples

# Use the default palette
scico(15)

# Flip the direction
scico(15, direction = -1)

# Take a subset of a palette
scico(15, begin = 0.3, end = 0.6, palette = "berlin")
**scico_palette_show**

Show the different scico palettes

---

**Description**

This is a simple function to show a gradient of the different palettes available in the scico package.

**Usage**

```
scico_palette_show(palettes = scico_palette_names())
```

**Arguments**

- **palettes**
  One or more palette names to show

**Examples**

```
scico_palette_show()
```
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