

Package: paletteNMR (via r-universe)

October 18, 2024

Type Package

Title Helper functions for using the NMR color palettes

Version 1.1.6

Description paletteNMR provides functions to access and browse the set of palettes available for use in publications at NMR. The main palette set is NMR's internal set, but the package also contains palettes for use with other clients' projects, and can be expanded to include other palettes as needed. Call `vignette("`intro", "`paletteNMR")` to see more information.

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URL <https://gitlab.com/NMRgroup/paletteNMR>

BugReports <https://gitlab.com/NMRgroup/paletteNMR/issues>

Encoding UTF-8

LazyData true

RoxygenNote 7.2.1

Depends R (>= 4.0.0)

Imports grDevices, rlang

Suggests testthat, knitr, rmarkdown, dplyr (>= 1.0.0), lubridate, ggplot2, patchwork, colorspace, scales

VignetteBuilder knitr

Repository <https://nmrgroup.r-universe.dev>

RemoteUrl <https://gitlab.com/NMRgroup/paletteNMR>

RemoteRef HEAD

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checkHasNames	<i>Check if an object has names</i>
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Description

Check if an object has names

Check if an object has names

Usage

```
checkHasNames(x)
```

```
## Default S3 method:
```

```
checkHasNames(x)
```

Arguments

x An object to check for names.

Value

Confirmation that object has valid names.

checkValidHex	<i>Check an object for valid hex colors</i>
---------------	---

Description

Check an object for valid hex colors
Check an object for valid hex colors
Check a list for valid hex colors
Check a vector for valid hex colors
Check a data.frame for valid hex colors

Usage

```
checkValidHex(x)  
  
## Default S3 method:  
checkValidHex(x)  
  
## S3 method for class 'list'  
checkValidHex(x)  
  
## S3 method for class 'vector'  
checkValidHex(x)  
  
## S3 method for class 'data.frame'  
checkValidHex(x)
```

Arguments

x An object containing colors (as strings)

Value

Confirmation that object contains only valid colors, or some explanation of errors if it contains invalid ones.

draw_palette	<i>Draw a palette using 'nmr_colors'</i>
--------------	--

Description

Draw a palette using 'nmr_colors'

Usage

```
draw_palette(
  scale = "categorical",
  pal = "quad",
  set = "0",
  index = NULL,
  pal_df = paletteNMR::nmrPalettes_2020,
  ncols = 1
)
```

Arguments

scale	String to select colors for categorical or numerical scales
pal	String to select palette type (e.g. for categorical, pairs or quads)
set	String to select set of colors in palette (e.g. different variations or base colors)
index	A set of numerical values to subset palette
pal_df	List of dataframes containing color palettes, defaults to internal package data
ncols	A number of columns to display in the drawn palette

Value

A grid of color swatches

Examples

```
draw_palette(scale = "numerical", pal = "nondiverg", set = "BT6", index = 1:4, ncols = 2)
draw_palette(scale = "categorical", pal = "quad", set = "0")
```

get_pal_args

Helper function to select names used in calling 'nmr_colors'

Description

Helper function to select names used in calling 'nmr_colors'

Usage

```
get_pal_args(
  arg_list,
  colname_str = "(^(scale|pal|set|index|contrast|discrete|interpolate|reverse))"
)
```

Arguments

- arg_list A list of arguments used to call the function calling 'get_pal_args'
- colname_str A string selecting arguments by name (regex allowed)

Value

A subset of supplied argument names

neeaPalettes_2017 *Slim NEEA Market Research & Evaluation color palette, from 2017*

Description

A single categorical palette we last used for NEEA in 2020

Usage

neeaPalettes_2017

Format

A list of 1 dataframe containing separate color palettes

nexantPalettes_2017 *Slim Nexant color palette*

Description

A single categorical palette we last used for Nexant in PY2019

Usage

nexantPalettes_2017

Format

A list of 1 dataframe containing separate color palettes

nmrColors_2020	<i>NMR color swatches, 2020</i>
----------------	---------------------------------

Description

A dataframe of colors, used to create NMR palettes, along with some extras

Usage

```
nmrColors_2020
```

Format

A dataframe of color IDs and hex codes

nmrPalettes_2017	<i>Full NMR color palette, 08/18/17</i>
------------------	---

Description

A list of color palettes, divided by category into "Main", "Numerical", "Categorical", and "Extras." Within some categories, there are further subdivisions into Ordinal / Divergent, Time-series / Map, and further lettered subdivisions.

Usage

```
nmrPalettes_2017
```

Format

A list of 10 dataframes, each containing separate color palettes

nmrPalettes_2020	<i>NMR palettes, 2020</i>
------------------	---------------------------

Description

A list of color palettes broken up by type: categorical, diverging, sequential, maps. Some palettes have sets with different base colors

Usage

```
nmrPalettes_2020
```

Format

A list of 10 dataframes, each containing separate color palettes

nmr_colors	<i>Helper function to access palette colors</i>
------------	---

Description

Some palettes are loaded in with contrasting colors for use with text. Note: accepts regex statements in arguments.

Usage

```
nmr_colors(  
  scale = c("categorical", "numerical"),  
  pal,  
  set,  
  index = NULL,  
  pal_df = paletteNMR::nmrPalettes_2020  
)
```

Arguments

scale	String to select colors for categorical or numerical scales
pal	String to select palette type (e.g. for categorical, pairs or quads)
set	String to select set of colors in palette (e.g. different variations or base colors)
index	A set of numerical values to subset palette
pal_df	List of dataframes containing color palettes, defaults to internal package data

Value

A named vector containing colors

Examples

```
nmr_colors(scale = "categorical", pal = "lines", set = "All")  
nmr_colors(scale = "categorical", pal = "quad", set = "0")
```

nmr_pal	<i>Generate a palette function</i>
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Description

Generate a palette function

Usage

```
nmr_pal(
  scale = "Categorical",
  pal = "quad",
  set = "C",
  index = NULL,
  pal_df = paletteNMR::nmrPalettes_2020,
  interpolate = FALSE,
  reverse = FALSE,
  ...
)
```

Arguments

scale	String to select colors for categorical or numerical scales
pal	String to select palette type (e.g. for categorical, pairs or quads)
set	String to select set of colors in palette (e.g. different variations or base colors)
index	A set of numerical values to subset palette
pal_df	List of dataframes containing color palettes, defaults to internal package data
interpolate	A boolean toggling whether to interpolate colors
reverse	A boolean toggling whether to reverse the palette
...	Additional arguments to pass to 'colorRampPalette'

Value

A (sub)set of colors from an NMR palette, or a set interpolated from one

scale_nmr_color_categorical

Generate a categorical color scale with NMR colors

Description

Generate a categorical color scale with NMR colors

Generate a colour scale for nmr colors

Usage

```
scale_nmr_color_categorical(
  pal = "All",
  set = "",
  index = NULL,
  pal_df = paletteNMR::nmrPalettes_2020,
  discrete = TRUE,
```



```

    interpolate = FALSE,
    reverse = FALSE,
    ...
  )

scale_nmr_colour_categorical(
  pal = "All",
  set = "",
  index = NULL,
  pal_df = paletteNMR::nmrPalettes_2020,
  discrete = TRUE,
  interpolate = FALSE,
  reverse = FALSE,
  ...
)

```

Arguments

pal	String to select palette type (e.g. for categorical, pairs or quads)
set	String to select set of colors in palette (e.g. different variations or base colors)
index	A set of numerical values to subset palette
pal_df	List of dataframes containing color palettes, defaults to internal package data
discrete	A boolean toggling whether the aesthetic is discrete
interpolate	A boolean toggling whether to interpolate colors
reverse	A boolean toggling whether to reverse the palette
...	Additional arguments to pass to 'colorRampPalette'

Value

A color scale for use in ggplot2 graphics.

See Also

[scale_nmr_color_diverging](#), [scale_nmr_color_sequential](#), [scale_nmr_color_orthogonal](#)

scale_nmr_color_diverging

Generate a diverging color scale with NMR colors

Description

Generate a diverging color scale with NMR colors

Generate a colour scale for nmr colors

Usage

```
scale_nmr_color_diverging(  
  set = "",  
  index = NULL,  
  pal_df = paletteNMR::nmrPalettes_2020,  
  discrete = TRUE,  
  interpolate = FALSE,  
  reverse = FALSE,  
  ...  
)  
  
scale_nmr_colour_diverging(  
  set = "",  
  index = NULL,  
  pal_df = paletteNMR::nmrPalettes_2020,  
  discrete = TRUE,  
  interpolate = FALSE,  
  reverse = FALSE,  
  ...  
)
```

Arguments

set	String to select set of colors in palette (e.g. different variations or base colors)
index	A set of numerical values to subset palette
pal_df	List of dataframes containing color palettes, defaults to internal package data
discrete	A boolean toggling whether the aesthetic is discrete
interpolate	A boolean toggling whether to interpolate colors
reverse	A boolean toggling whether to reverse the palette
...	Additional arguments to pass to 'colorRampPalette'

Value

A color scale for use in ggplot2 graphics.

See Also

[scale_nmr_color_sequential](#), [scale_nmr_color_orthogonal](#), [scale_nmr_color_categorical](#)

`scale_nmr_color_orthogonal`*Generate a orthogonal color scale with NMR colors*

Description

Generate a orthogonal color scale with NMR colors

Generate a colour scale for nmr colors

Usage

```
scale_nmr_color_orthogonal(  
  set = "",  
  index = NULL,  
  pal_df = paletteNMR::nmrPalettes_2020,  
  discrete = TRUE,  
  interpolate = FALSE,  
  reverse = FALSE,  
  ...  
)
```

```
scale_nmr_colour_orthogonal(  
  set = "",  
  index = NULL,  
  pal_df = paletteNMR::nmrPalettes_2020,  
  discrete = TRUE,  
  interpolate = FALSE,  
  reverse = FALSE,  
  ...  
)
```

Arguments

<code>set</code>	String to select set of colors in palette (e.g. different variations or base colors)
<code>index</code>	A set of numerical values to subset palette
<code>pal_df</code>	List of dataframes containing color palettes, defaults to internal package data
<code>discrete</code>	A boolean toggling whether the aesthetic is discrete
<code>interpolate</code>	A boolean toggling whether to interpolate colors
<code>reverse</code>	A boolean toggling whether to reverse the palette
<code>...</code>	Additional arguents to pass to ‘colorRampPalette’

Value

A color scale for use in ggplot2 graphics.

See Also

[scale_nmr_color_diverging](#), [scale_nmr_color_sequential](#), [scale_nmr_color_categorical](#)

scale_nmr_color_sequential

Generate a sequential color scale with NMR colors

Description

Generate a sequential color scale with NMR colors

Generate a colour scale for nmr colors

Usage

```
scale_nmr_color_sequential(
  set = "",
  index = NULL,
  pal_df = paletteNMR::nmrPalettes_2020,
  discrete = TRUE,
  interpolate = FALSE,
  reverse = FALSE,
  ...
)
```

```
scale_nmr_colour_sequential(
  set = "",
  index = NULL,
  pal_df = paletteNMR::nmrPalettes_2020,
  discrete = TRUE,
  interpolate = FALSE,
  reverse = FALSE,
  ...
)
```

Arguments

set	String to select set of colors in palette (e.g. different variations or base colors)
index	A set of numerical values to subset palette
pal_df	List of dataframes containing color palettes, defaults to internal package data
discrete	A boolean toggling whether the aesthetic is discrete
interpolate	A boolean toggling whether to interpolate colors
reverse	A boolean toggling whether to reverse the palette
...	Additional arguments to pass to 'colorRampPalette'

Value

A color scale for use in ggplot2 graphics.

See Also

[scale_nmr_color_diverging](#), [scale_nmr_color_orthogonal](#), [scale_nmr_color_categorical](#)

scale_nmr_fill_categorical

Generate a categorical fill scale with NMR colors

Description

Generate a categorical fill scale with NMR colors

Usage

```
scale_nmr_fill_categorical(
  pal = "All",
  set = "",
  index = NULL,
  pal_df = paletteNMR::nmrPalettes_2020,
  discrete = TRUE,
  interpolate = FALSE,
  reverse = FALSE,
  ...
)
```

Arguments

pal	String to select palette type (e.g. for categorical, pairs or quads)
set	String to select set of colors in palette (e.g. different variations or base colors)
index	A set of numerical values to subset palette
pal_df	List of dataframes containing color palettes, defaults to internal package data
discrete	A boolean toggling whether the aesthetic is discrete
interpolate	A boolean toggling whether to interpolate colors
reverse	A boolean toggling whether to reverse the palette
...	Additional arguments to pass to ‘colorRampPalette‘

Value

A color scale for use in ggplot2 graphics.

See Also

[scale_nmr_fill_diverging](#), [scale_nmr_fill_sequential](#), [scale_nmr_fill_orthogonal](#)

`scale_nmr_fill_diverging`*Generate a diverging fill scale with NMR colors*

Description

Generate a diverging fill scale with NMR colors

Usage

```
scale_nmr_fill_diverging(  
  set = "",  
  index = NULL,  
  pal_df = paletteNMR::nmrPalettes_2020,  
  discrete = TRUE,  
  interpolate = FALSE,  
  reverse = FALSE,  
  ...  
)
```

Arguments

<code>set</code>	String to select set of colors in palette (e.g. different variations or base colors)
<code>index</code>	A set of numerical values to subset palette
<code>pal_df</code>	List of dataframes containing color palettes, defaults to internal package data
<code>discrete</code>	A boolean toggling whether the aesthetic is discrete
<code>interpolate</code>	A boolean toggling whether to interpolate colors
<code>reverse</code>	A boolean toggling whether to reverse the palette
<code>...</code>	Additional arguments to pass to <code>'colorRampPalette'</code>

Value

A color scale for use in ggplot2 graphics.

See Also

[scale_nmr_fill_sequential](#), [scale_nmr_fill_orthogonal](#), [scale_nmr_fill_categorical](#)

`scale_nmr_fill_orthogonal`*Generate a orthogonal fill scale with NMR colors*

Description

Generate a orthogonal fill scale with NMR colors

Usage

```
scale_nmr_fill_orthogonal(  
  set = "",  
  index = NULL,  
  pal_df = paletteNMR::nmrPalettes_2020,  
  discrete = TRUE,  
  interpolate = FALSE,  
  reverse = FALSE,  
  ...  
)
```

Arguments

<code>set</code>	String to select set of colors in palette (e.g. different variations or base colors)
<code>index</code>	A set of numerical values to subset palette
<code>pal_df</code>	List of dataframes containing color palettes, defaults to internal package data
<code>discrete</code>	A boolean toggling whether the aesthetic is discrete
<code>interpolate</code>	A boolean toggling whether to interpolate colors
<code>reverse</code>	A boolean toggling whether to reverse the palette
<code>...</code>	Additional arguments to pass to <code>'colorRampPalette'</code>

Value

A color scale for use in ggplot2 graphics.

See Also

[scale_nmr_fill_diverging](#), [scale_nmr_fill_sequential](#), [scale_nmr_fill_categorical](#)

`scale_nmr_fill_sequential`*Generate a sequential fill scale with NMR colors*

Description

Generate a sequential fill scale with NMR colors

Usage

```
scale_nmr_fill_sequential(  
  set = "",  
  index = NULL,  
  pal_df = paletteNMR::nmrPalettes_2020,  
  discrete = TRUE,  
  interpolate = FALSE,  
  reverse = FALSE,  
  ...  
)
```

Arguments

<code>set</code>	String to select set of colors in palette (e.g. different variations or base colors)
<code>index</code>	A set of numerical values to subset palette
<code>pal_df</code>	List of dataframes containing color palettes, defaults to internal package data
<code>discrete</code>	A boolean toggling whether the aesthetic is discrete
<code>interpolate</code>	A boolean toggling whether to interpolate colors
<code>reverse</code>	A boolean toggling whether to reverse the palette
<code>...</code>	Additional arguments to pass to <code>'colorRampPalette'</code>

Value

A color scale for use in ggplot2 graphics.

See Also

[scale_nmr_fill_diverging](#), [scale_nmr_fill_orthogonal](#), [scale_nmr_fill_categorical](#)

theme_nmr	<i>Theme with NMR color palette</i>
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Description

Theme with NMR color palette

Usage

```
theme_nmr(base_size = 11, base_family = "sans")
```

Arguments

base_size	Numerical to set font sizes
base_family	String to set font family

Value

A ggplot2 theme theme_minimal

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