Package ‘meteogRam’

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Title Tools for plotting meteograms
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Description meteogram is a collection of programs for plotting meteograms for meteorological data such as atmospheric cross section, temperatures plots.
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crosssection Atmospheric cross section

Description

Visualisation of atmospheric cross section.
crosssection

crosssection(humi, wind, temperature, plot.temp=TRUE, plot.wind=TRUE, colors=c("brown", "yellow", "green"), ylab_tics, ylab, h_limit, h_step, p_nr)

Arguments

humi  R dataframe with humidity values for different pressure levels and different time steps. Data must be organized in following way: in rows time steps, from the first time step in the first line, to the last time step in the last line, in columns pressure levels, from the highest pressure level in the first column (e.g. 1000 hPa) to the lowest pressure level in the last column (e.g. 100 hPa)

wind  R dataframe with wind u and v components for different pressure levels and different time steps. Data must be organized in following way: in rows time steps, from the first time step in the first line, to the last time step in the last line, in columns pressure levels, first all u components of wind, than v components, from the highest pressure level in the first column (e.g. 1000 hPa) to the lowest pressure level in the last column (e.g. 100 hPa)

temperature  R dataframe with temperature values for different pressure levels and different time steps. Data must be organized in following way: in rows time steps, from the first time step in the first line, to the last time step in the last line, in columns pressure levels, from the highest pressure level in the first column (e.g. 1000 hPa) to the lowest pressure level in the last column (e.g. 100 hPa)

plot.temp  Logical, if TRUE plot temperature

plot.wind  Logical, if TRUE plot wind

colors  Colors for humidity contours, must define 3 colors like in: colors=c("brown", "yellow", "green")

ylab_tics  Position of y ticks, from 0 to 1. 0 - the highest pressure, 1 - the lowest one.

ylab  y label names, for example ylab=c(1000,800,600,400,200,100)

h_limit  length of forecast in hours, for example h_limit=54

h_step  time step of forecast in hours, for example h_step=3

p_nr  number of pressure levels = number of columns in indata

Author(s)

Bogdan Bochenek

Examples

data(example_humi)
data(example_wind)
data(example_temperature)
crosssection(humi, wind, temperature, plot.temp=TRUE, plot.wind=TRUE, colors=c("brown", "yellow", "green"), ylab_tics=c(0,0.2,0.4,0.6,0.8,0.9), ylab=c(1000,800,600,400,200,100), h_limit=54, h_step=3, p_nr=10)
temperatures

Temperature meteogram

Description
Visualisation of temperatures.

Usage
temperatures(temperature.data, plot.dewt=TRUE, plot.surf=TRUE, plot.min_max=TRUE)

Arguments

temperature.data
R dataframe with 6 columns: time in hours, temperature at 2 meters, minimal temperature at 2 meters, maximal temperature at 2 meters, surface temperature, dew point temperature. temperature.data should have at least Temperature and time columns. Dataframe should have names as follow: time, Temperature, minT, maxT, Tdew, surf.temp

plot.dewt
Logical, if TRUE plot dew point temperature

plot.surf
Logical, if TRUE plot surface temperature

plot.min_max
Logical, if TRUE plot min and max temperatures

Author(s)
Bogdan Bochenek

Examples

data(example_temperature.data)
temperatures(temperature.data, plot.dewt=TRUE, plot.surf=TRUE, plot.min_max=TRUE)
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