

REKLIES-DE STATUS PIK

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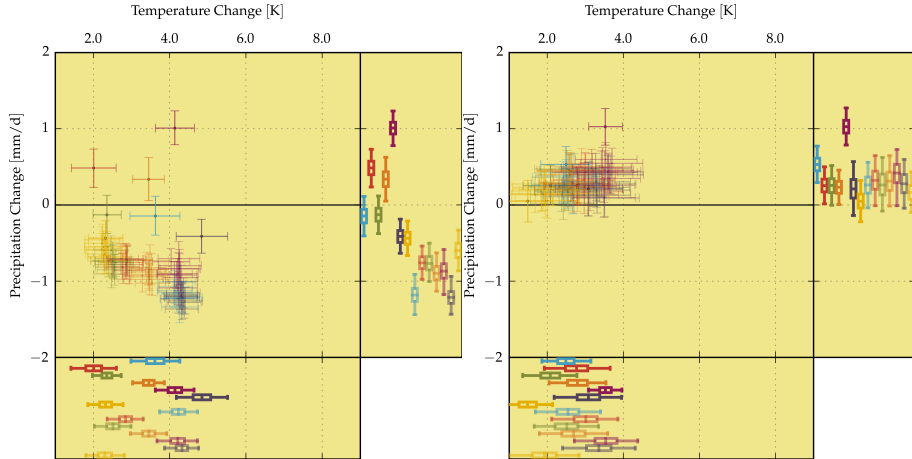
2nd September 2016

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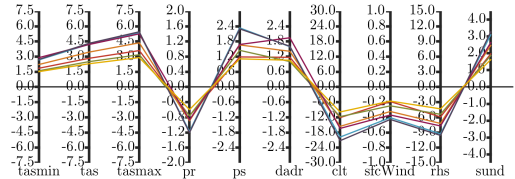
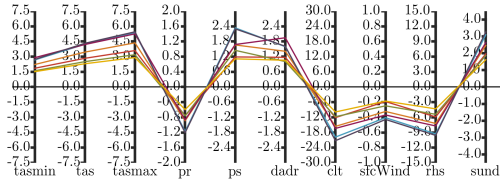
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1. STARS Simulationen: 2041-2070 vs. 1971-2000 (JJA / DJF)

saisonale Trends der GCMs +++ dekadisch +++ Pool:1971-2010 +++



Übersicht der STARS Läufe im Parameterraum: 2041-2070 vs. 1971-2000 (JJA / DJF)

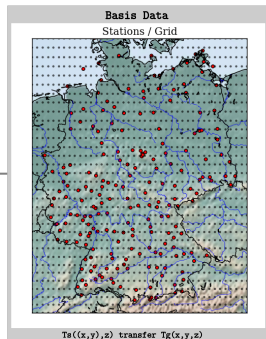


möglicher Standard für Reklies-De Auswertungen!

2. Verfahren zur Interpolation von Stationen auf Gitter

Schema

kalku



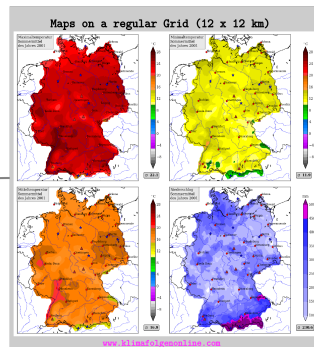
Inverse Distance Weighting (example)



$$Z(x) = \frac{\sum w_i z_i}{\sum w_i} = \frac{\frac{24}{1^2} + \frac{25}{2^2} + \frac{26}{2.5^2} + \frac{27}{3^2} + \frac{28}{4^2} + \frac{30}{5^2}}{\frac{1}{1^2} + \frac{1}{2^2} + \frac{1}{2.5^2} + \frac{1}{3^2} + \frac{1}{4^2} + \frac{1}{5^2}} = 32.38$$

see a-rechner for via [google.com/maps/IM_right.gif](http://www.google.com/maps/IM_right.gif)

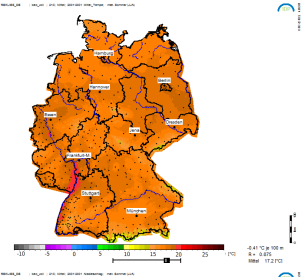
- daily values
- Max = 5
- Gamma = -0.00065 K/m (tmax, tmit, tmin)
- angle and distance weights



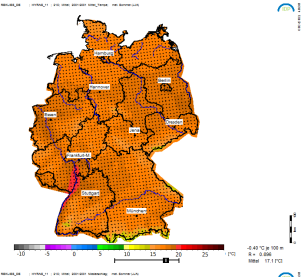
direkte Interpolation aller Variablen auf das Reklies-De Gitter

Vergleiche Einzeljahre: Sommer 2001 (tas, pr)

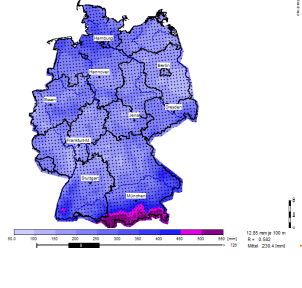
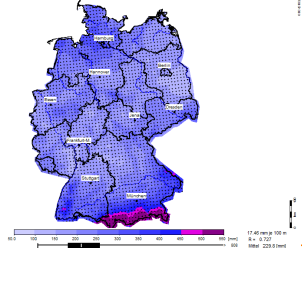
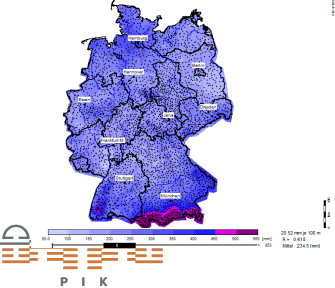
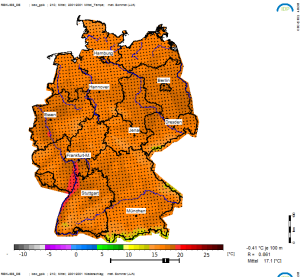
Stationen



HYRAS11

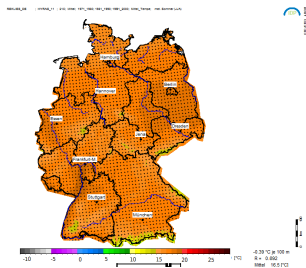


Beogrid

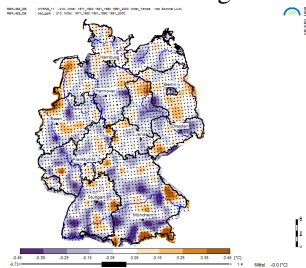


Vergleiche Klimaperioden: 1971-2000 (Sommer, tas, pr)

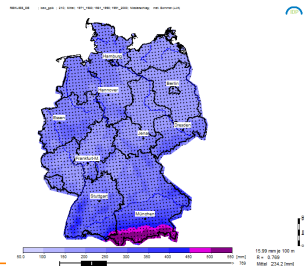
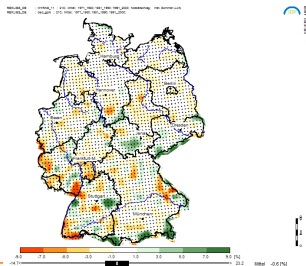
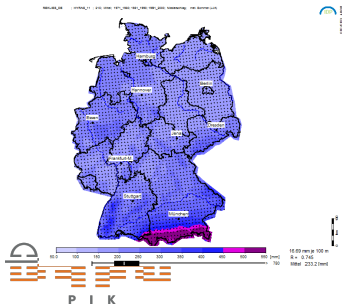
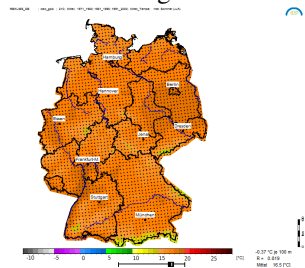
HYRAS11



HYRAS11-Beogrid

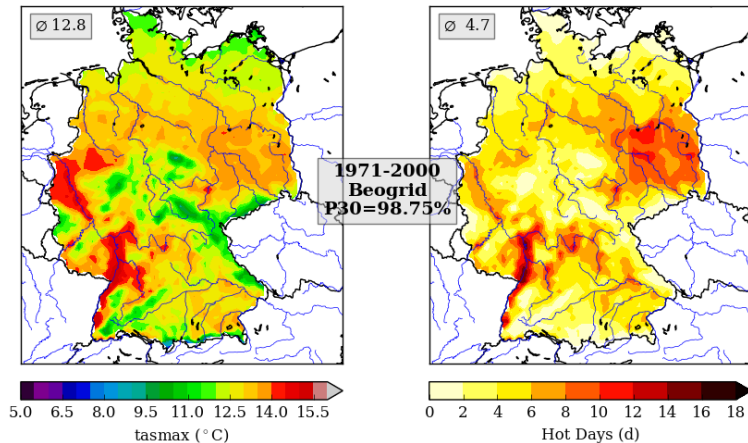


Beogrid

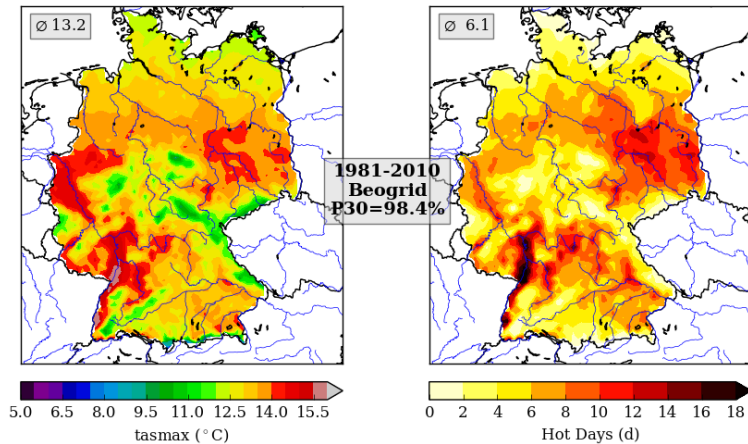


3. Schwellwertkorrekturen

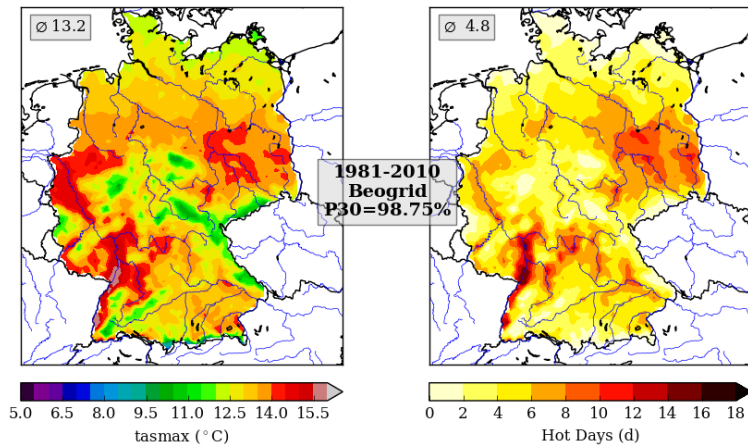
Beogrid: Heiße Tage (1971-2000: $T_{max} \geq 30.0^{\circ}\text{C} := 98.75\%$)



Beogrid: Heiße Tage (1981-2010: $T_{max} \geq 30.0^{\circ}\text{C}$:=98.40%)



Beogrid: Heiße Tage (1981-2010: $T_{max} \geq 30.5^{\circ}\text{C}$:=98.75%)



schwellwertkorrigiert

Alle Modelle: Heiße Tage (1971-2000)

1971-2000 (99.75 / 30.00)	REMO2009	CCLM4-8-17	HIRHAM5	RACMO22E	WRF331F	RCA4
MPI-M-MPI-ESM-LR	99.05 / 29.5	99.81 / 26.46				99.72 / 27.24
MIROC-MIROC5		98.66 / 30.15				
ICHEC-EC-EARTH		99.64 / 27.33		99.97 / 25.55		99.74 / 26.97
CERFACS-CNRM-CM5		99.46 / 28.38				
CCCma-CanESM2		98.34 / 30.71	98.77 / 29.96			98.20 / 30.99
MOHC-HadGEM2-ES		98.65 / 30.18				
IPSL-IPSL-CM5A-MR						

unvollständig!

Alle Modelle: Eistage (1971-2000)

1971-2000 (6.00 / 0.00)

REMO2009

CCLM4-8-17

HIRHAM5

RACMO22E

WRF331F

RCA4

MPI-M-MPI-ESM-LR

7.30 / -0.45

MIROC-MIROC5

ICHEC-EC-EARTH

CERFACS-CNRM-CM5

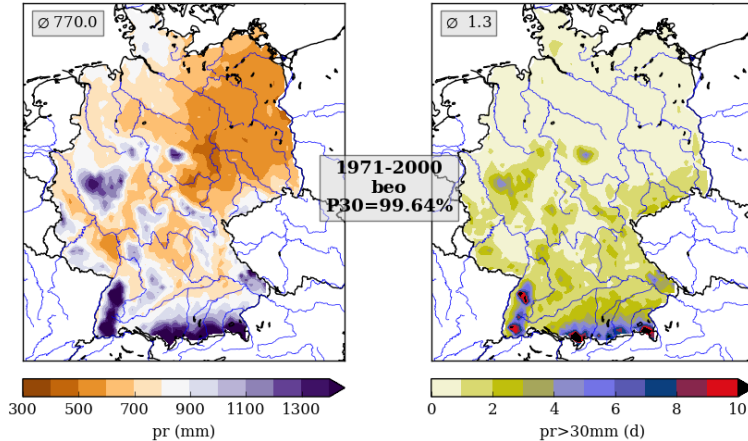
CCCma-CanESM2

MOHC-HadGEM2-ES

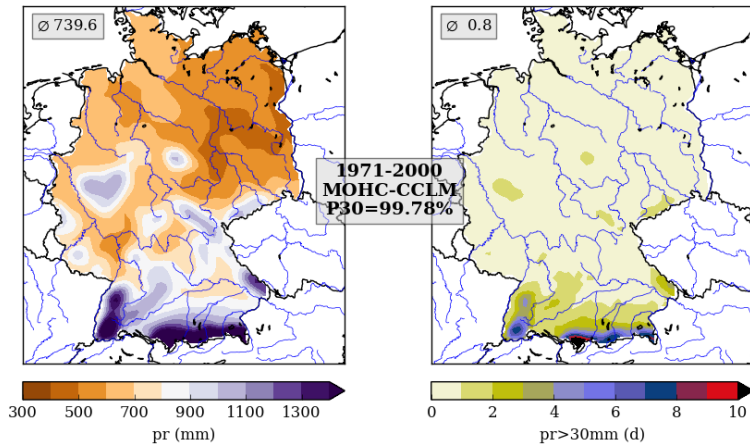
IPSL-IPSL-CM5A-MR

unvollständig!

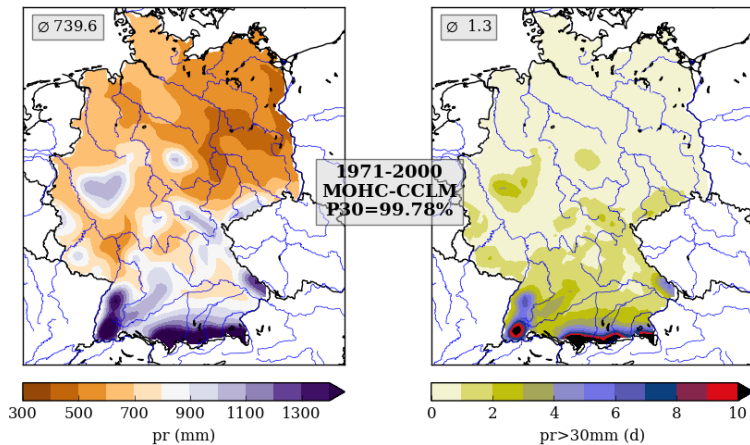
Beograd: Starkniederschläge (1971-2000: $pr \geq 30.0\text{mm} := 99.64\%$)



MOHC-CCLM: Starkniederschläge (1971-2000: $pr \geq 30.0\text{mm} := 99.78\%$)

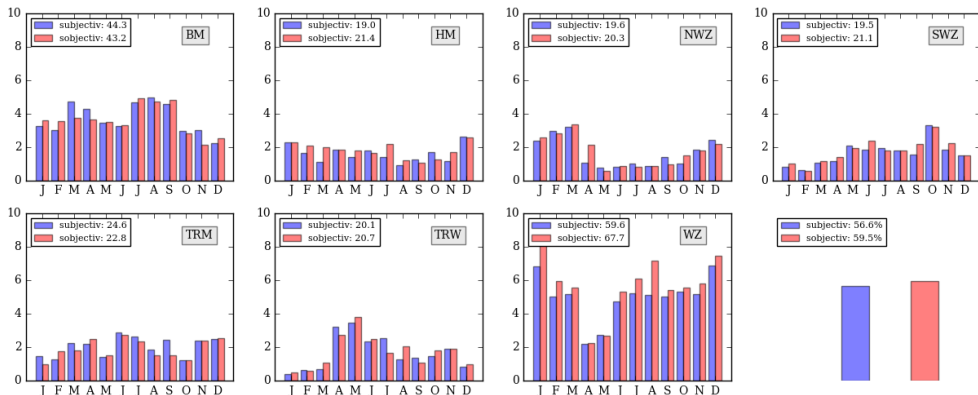


MOHC-CCLM: Starkniederschläge (1971-2000: $pr \geq 26.1\text{mm} := 99.64\%$)



schwellwertkorrigiert

Validierung mit NCEP Reanalysen: 1980-2013



Jahresgänge der Häufigkeitsverteilung bestimmter GWL können Antriebsmodelle charakterisieren!

Beispiel: MPI-ESM-LR

Formen von Wetterlagen: **play**

Beispiel: MPI-ESM-LR (1980-2010)

