

Leiðrétting á hitaspám

Brúun bcor leiðréttingarstuðla á net veðurspálíkana

Lilja Steinunn jónsdóttir



Hautþing Veðurfræðifélagsins

14. október 2021

Skekkjur í veðurspám

Bcor leiðréttingarstuðlar

Villur í 2m hitastigi í veðurspám

Reikninet líkansins er of gisið

- Fjöll og dalir sjást illa

Röng jaðargögn

- Landgerð
 - Vötn og jöklar rangt staðsett
 - Hlutfall gróðurs rangt
- Endurkast rangt
- Hæðarlíkan rangt

Villur í eðlisfræði líkans

- Kalt stöðugt jaðarlag
- Inn-/útgeislun
- Kvikumyndun við yfirborð

Bcor leiðréttingarstuðlar

Uppfært eftir hverja athugun

$$T_{\text{bcor}} = T_{\text{dmo}} + \text{cor} \quad (1)$$

Reiknaðir fyrir:

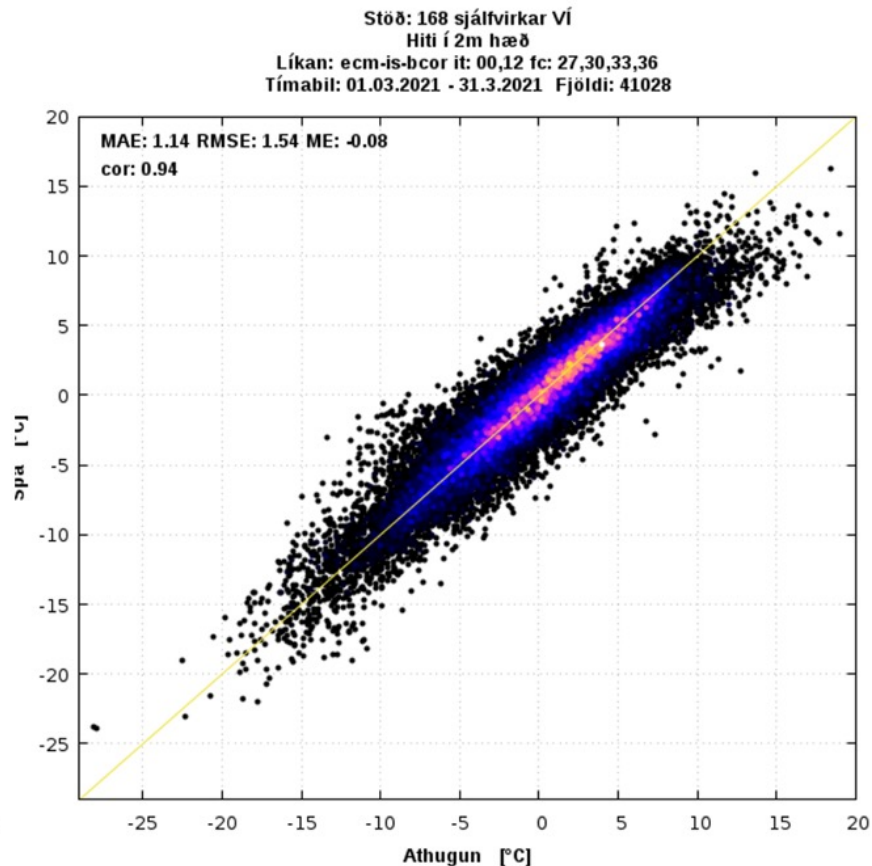
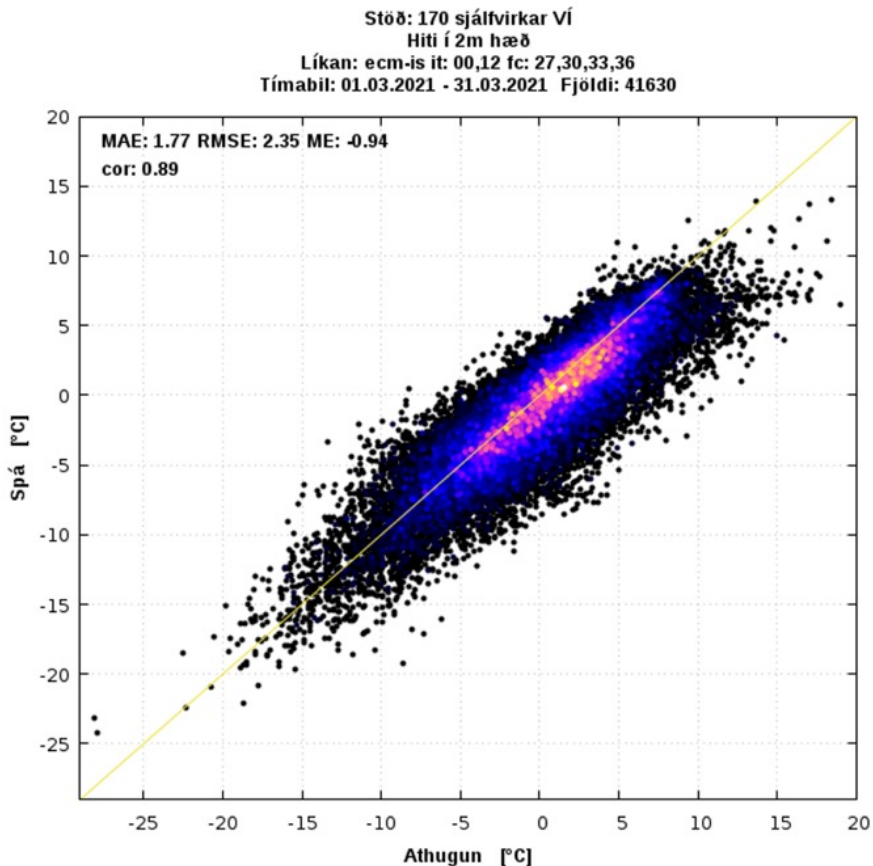
$$\text{cor}_i = 0,1(T_{\text{obs}} - T_{\text{fct}}) + 0,9\text{cor}_{i-1} \quad (2)$$

- hverja veðurstöð
- hvert spáskref
- hverja klukkustund sólarhringsins.

$$\text{cor}_0 = 0 \quad (3)$$

Aðferð byggð á ritgerð eftir Boi
(DOI:10.1017/S1350482704001318)

EC-HRES spár fyrir mars 2021 án og með bcor leiðréttingu



Brúun á net veðurspálíkana

Bcor leiðréttingarstuðlar

Brúun bcor leiðréttingarstuðla á net veðurspálíkana

Marktækar ytri breytur:

- Hæð veðurstöðva í neti veðurlíkans
- Hitastig

Fyrst:

- hæð veðurstöðva í neti
- hitastig

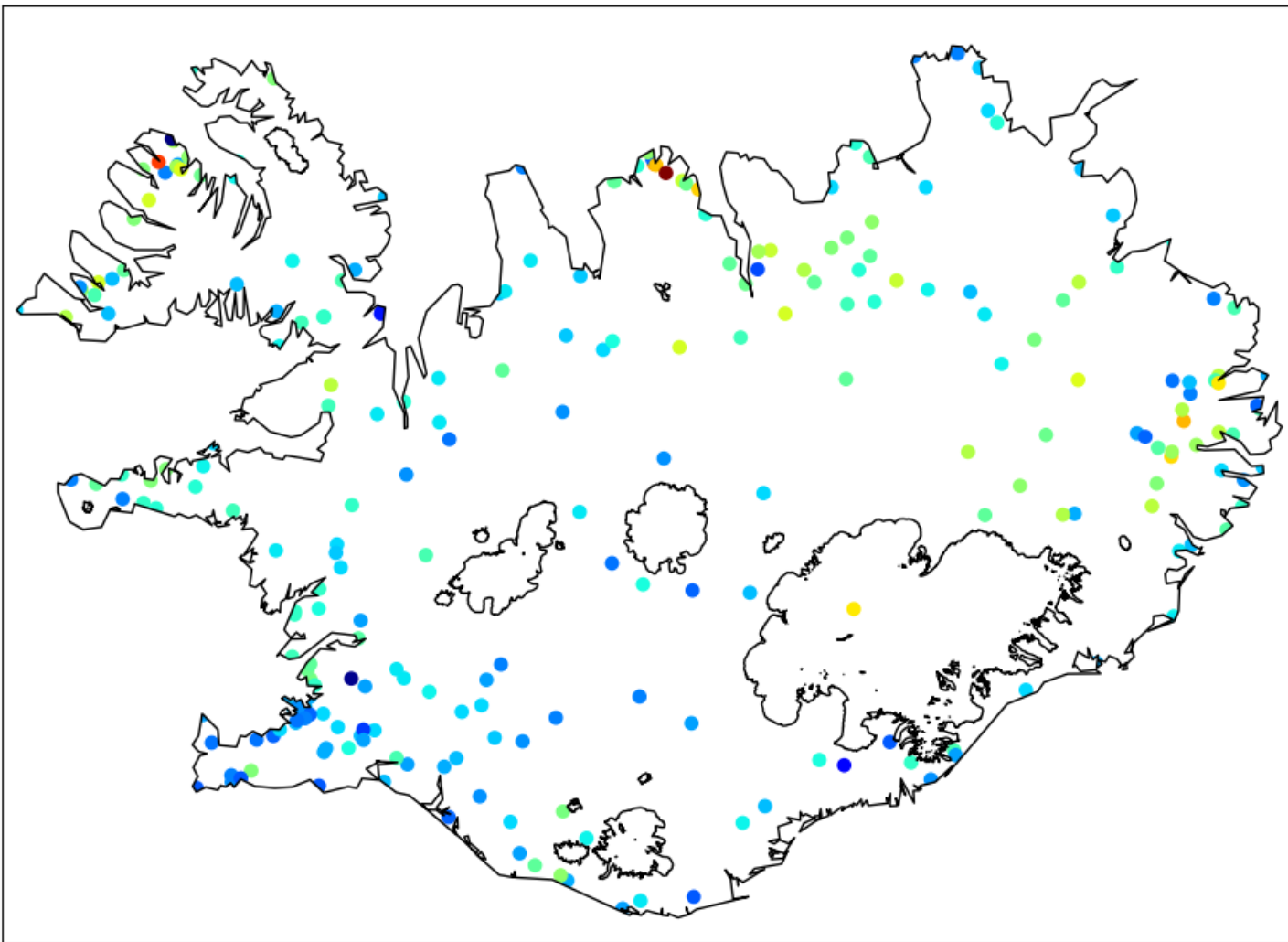
Ítrun:

- hæð veðurstöðva í neti
- leiðrétt hitaspá

Fært á háupplausnarkort

- EC-HRES 9km
- HARMONIE-AROME 2,5 km
- HM750M 750 m

2021-06-27 04:00:00 B-Cor gildi á stöðvunum notuð til grundvallar línulegri brúun



Veðurstofa
Íslands

5

4

3

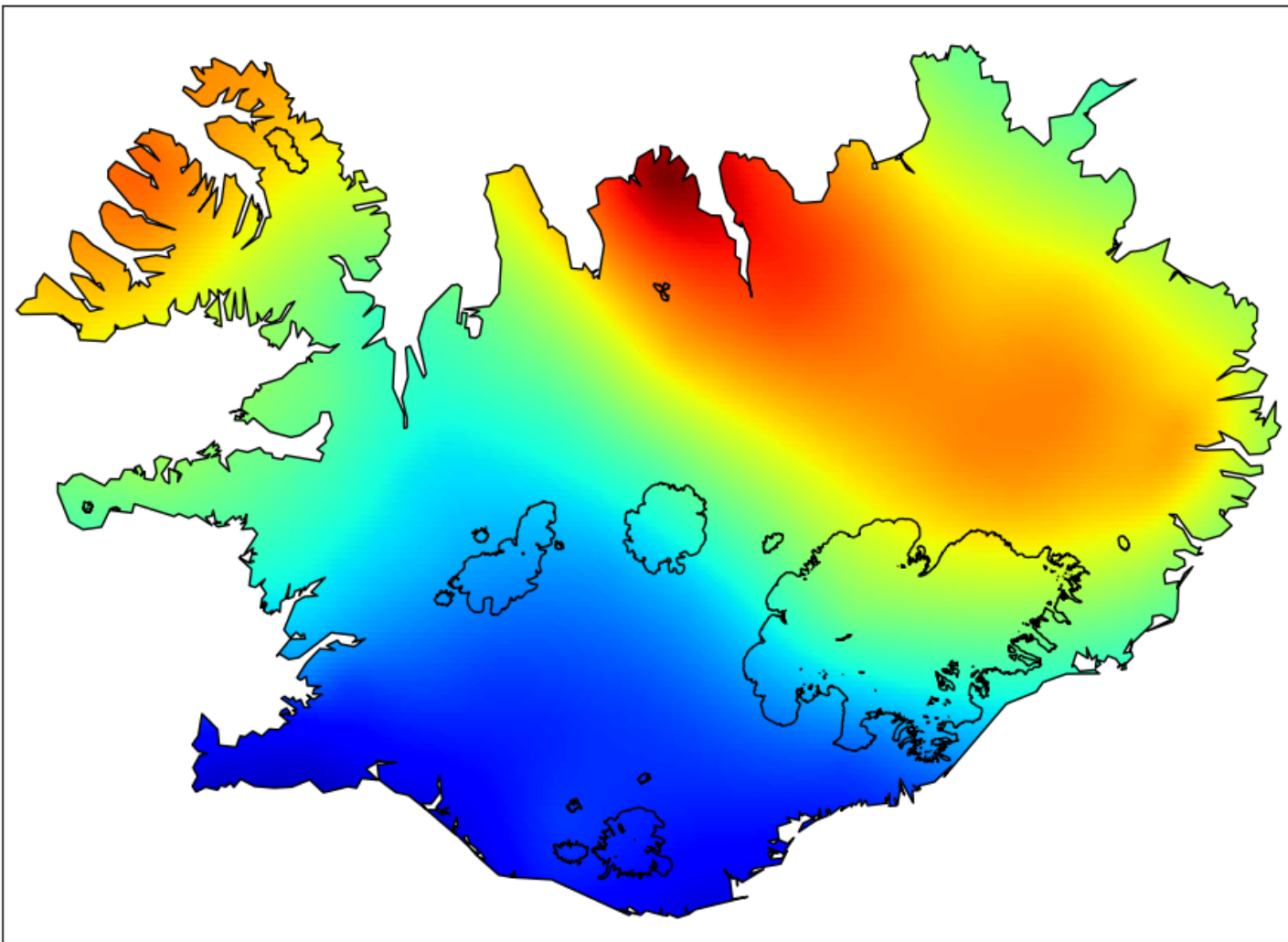
2

1

0

-1

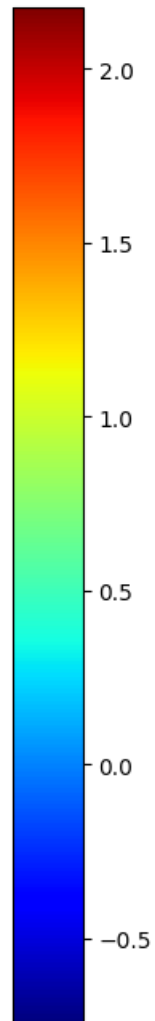
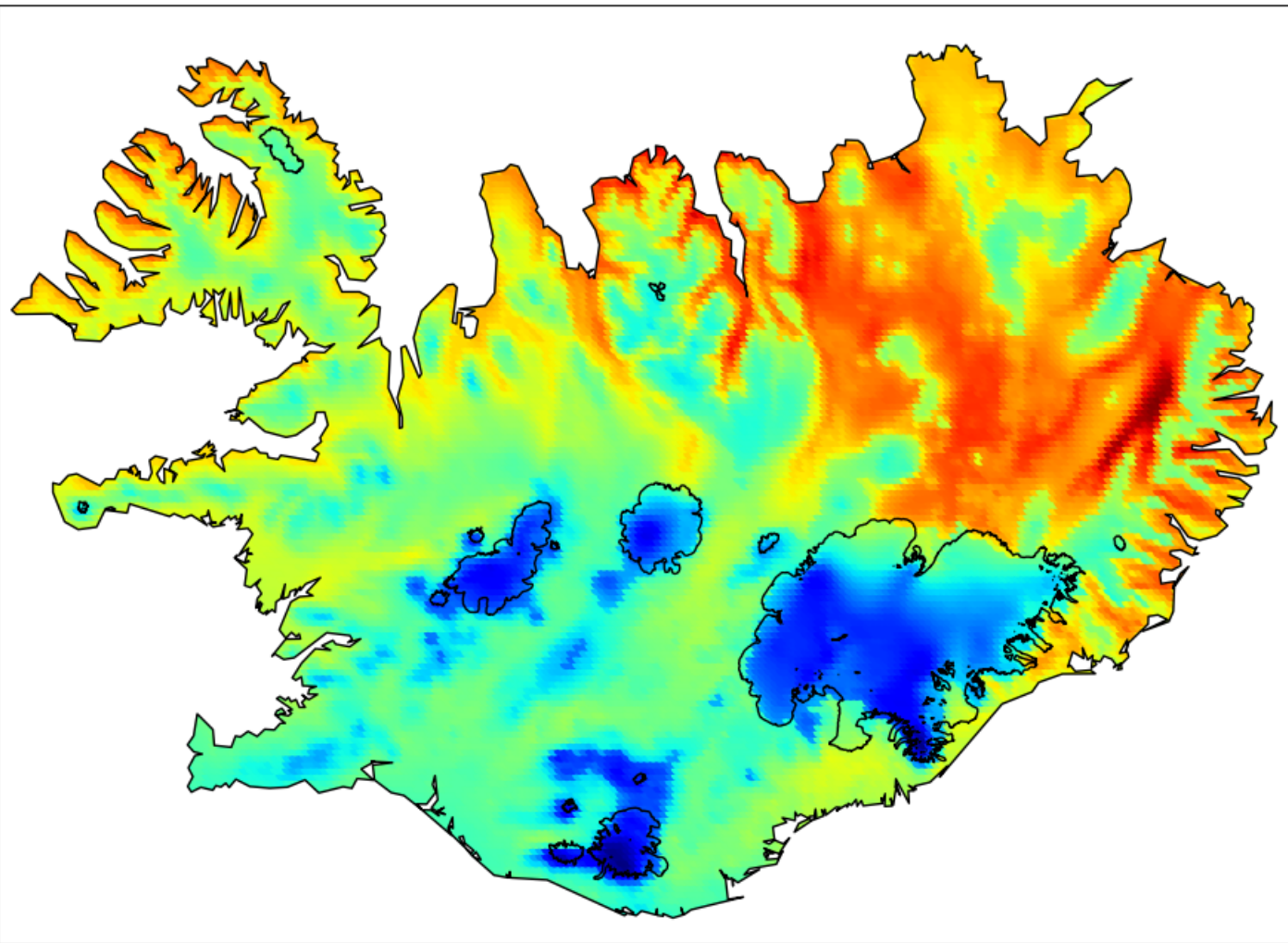
2021-06-27 04:00:00 Kringing brúun á BCOR í punktum



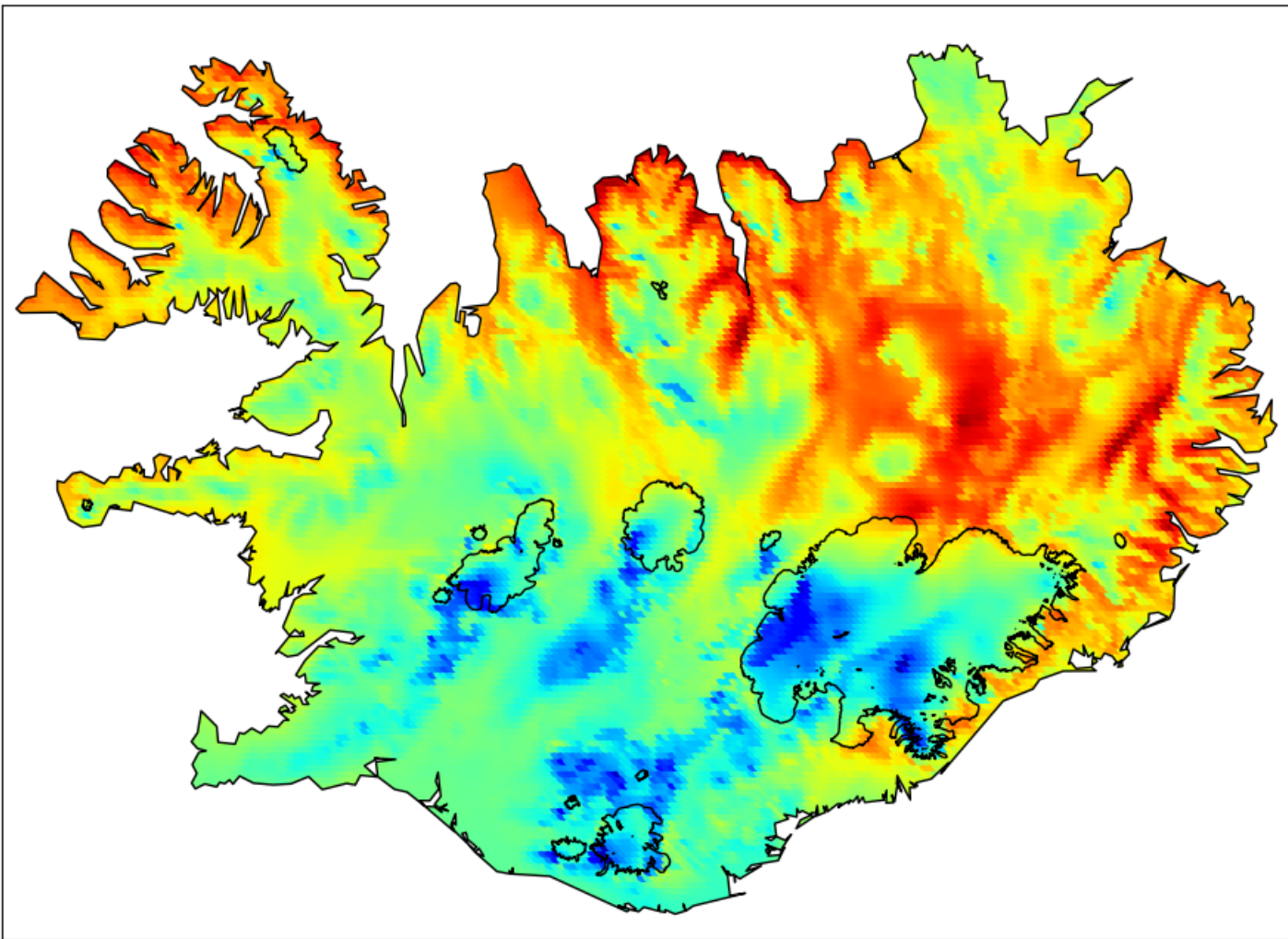
Veðurstofa
Íslands

1.8
1.6
1.4
1.2
1.0
0.8
0.6

2021-06-27 04:00:00 Kriging brúin á BCOR í punktum með hitastigi



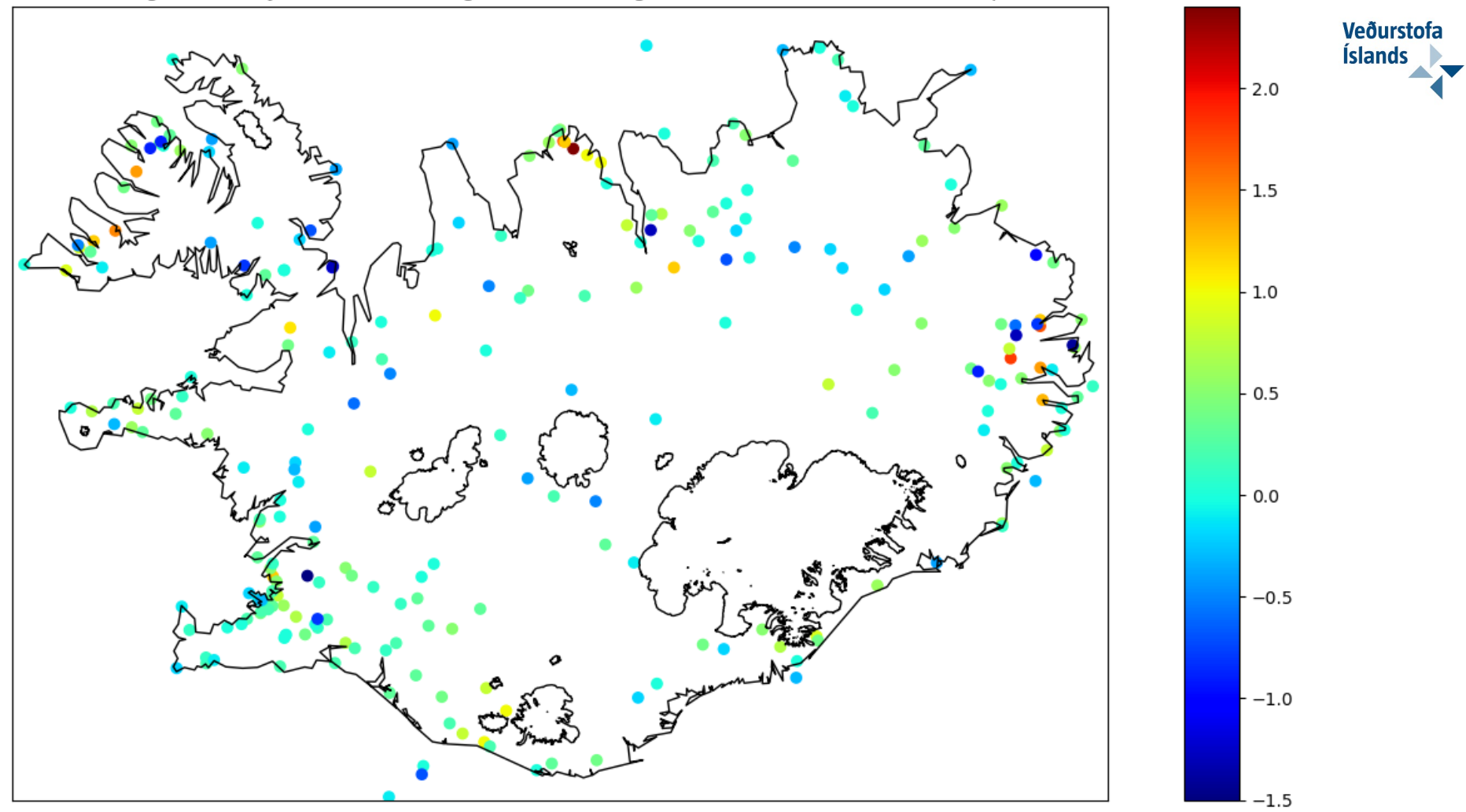
2021-06-27 04:00:00 Kriging brúin á BCOR í punktum með hitastigi og ítrað yfir leiðrétt hitastig á spá



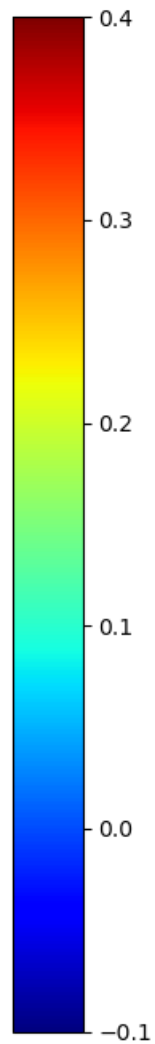
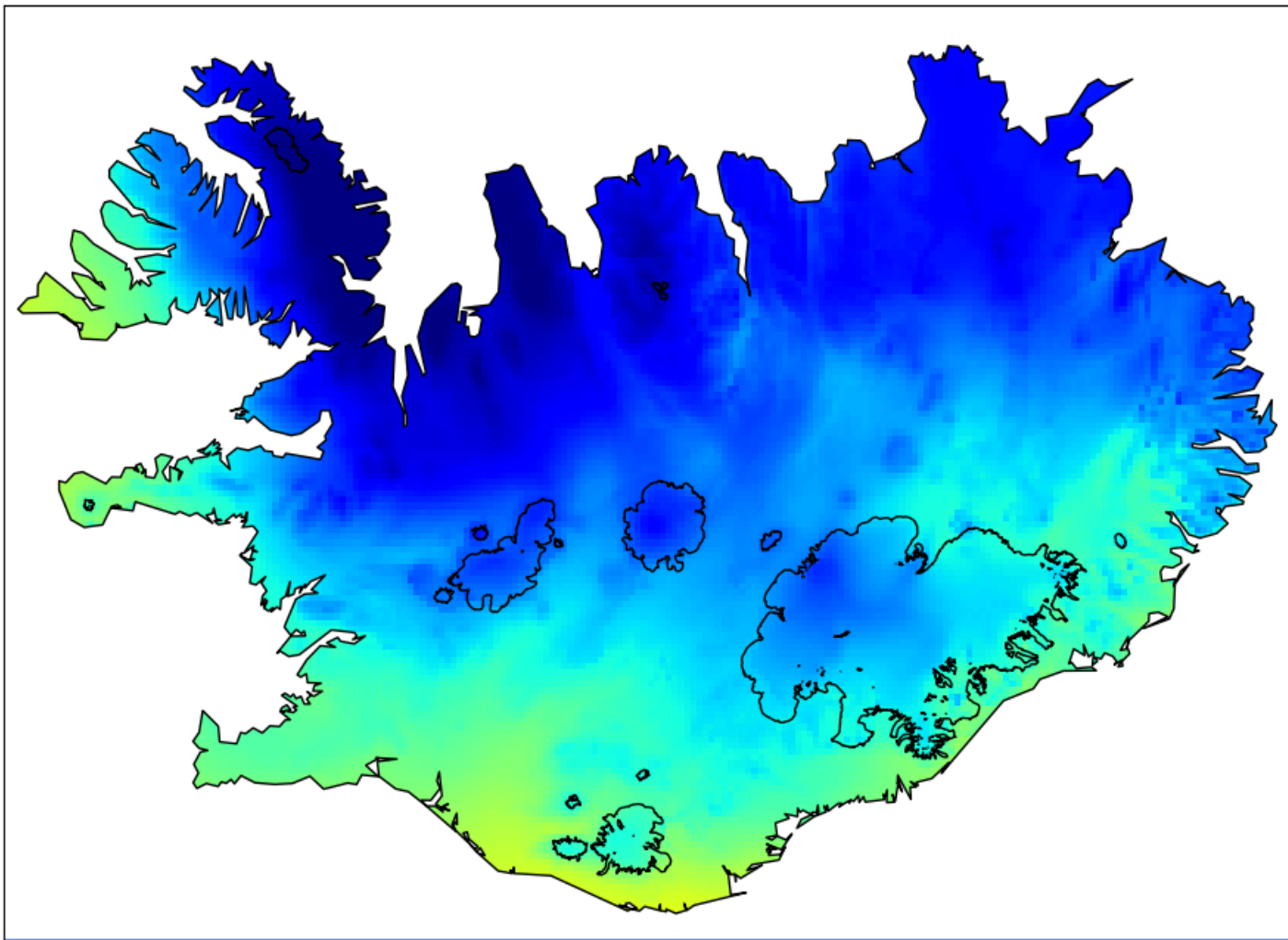
Bcor leiðréttingarstuðlar

HARMONIE-AROME

Bcor leiðréttingarstuðlar fyrir 255 veðurathugunarstöðvar vegna harmonie 2021-10-13 12:00 spátími 6 klt

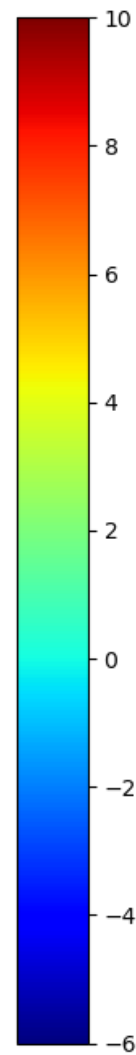
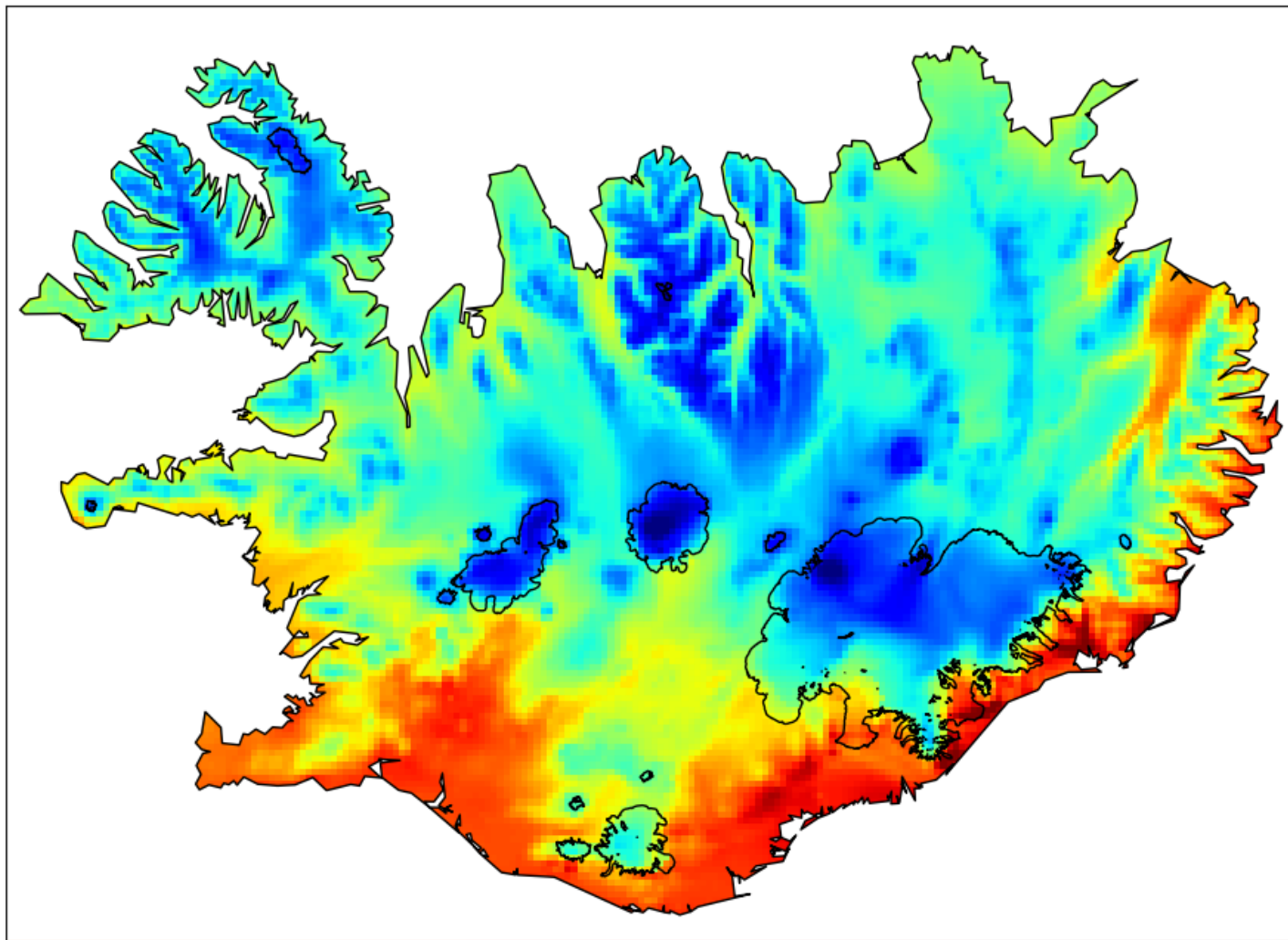


Leiðrétting á Harmonie greiningu 2021-10-13 06:00: spátími 6 klst

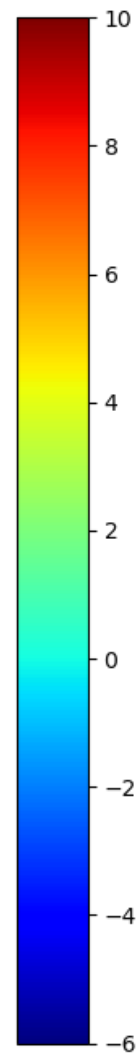
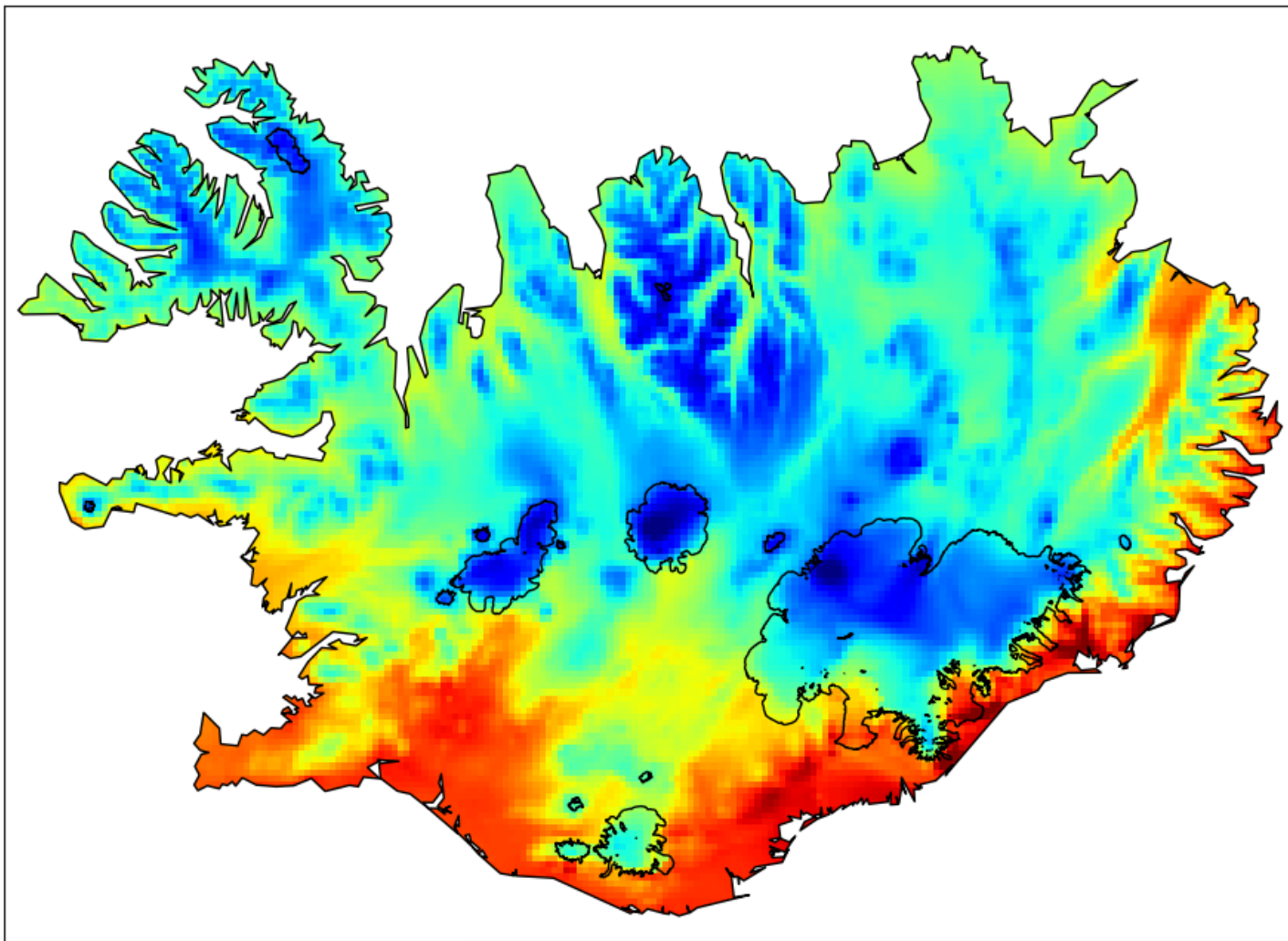


Bcor leiðréttingarstuðlar HARMONIE-AROME

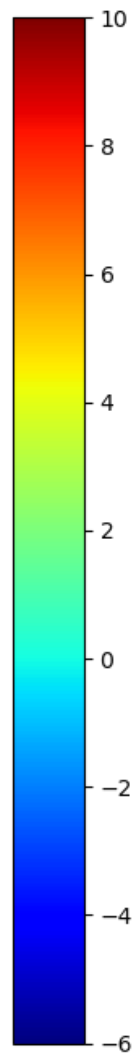
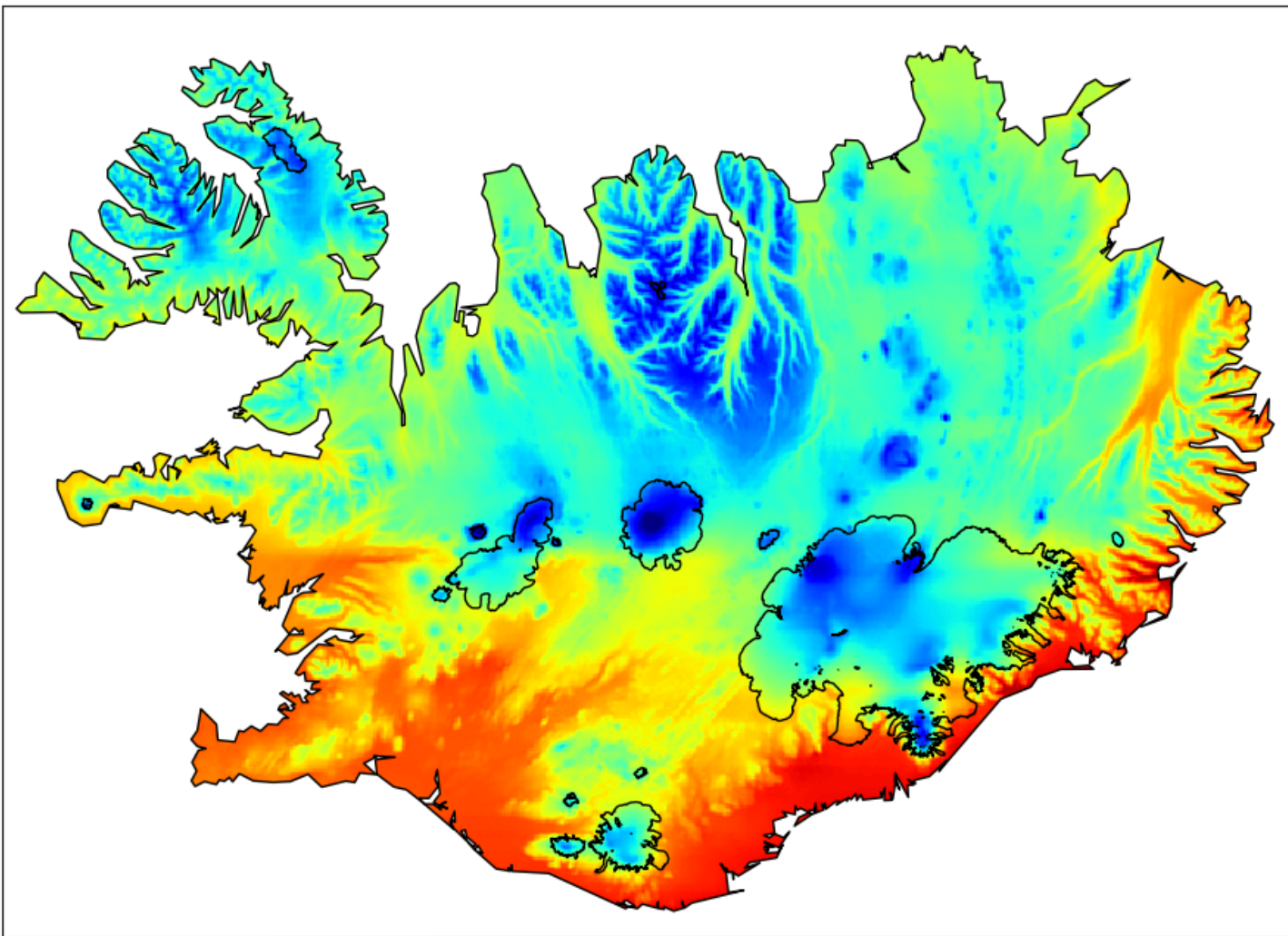
Áhrif á spá



Harmonie leiðrétt greining 2021-10-13 06:00: spátími 6 klst



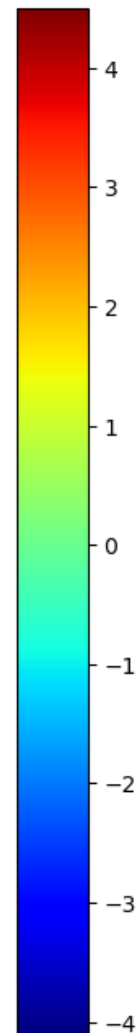
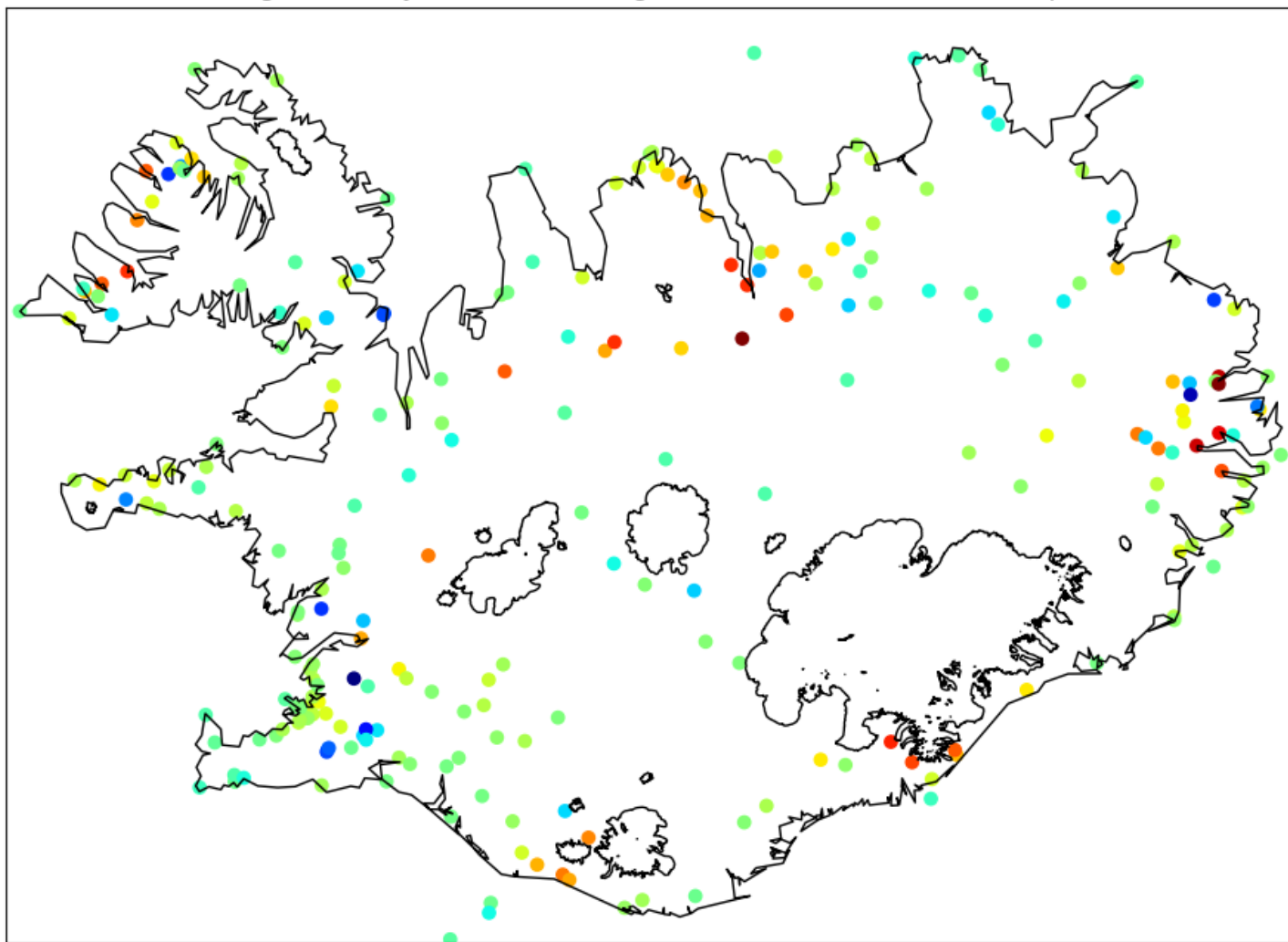
Harmonie leiðrétt greining á neti HM750m líkansins 2021-10-13 06:00: spátími 6 klst



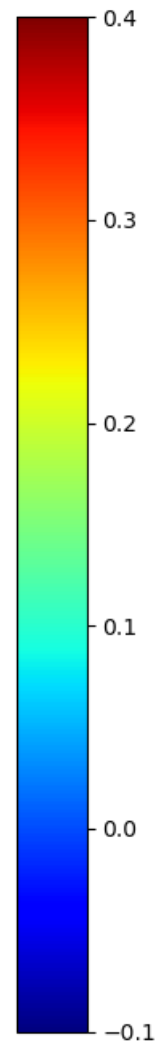
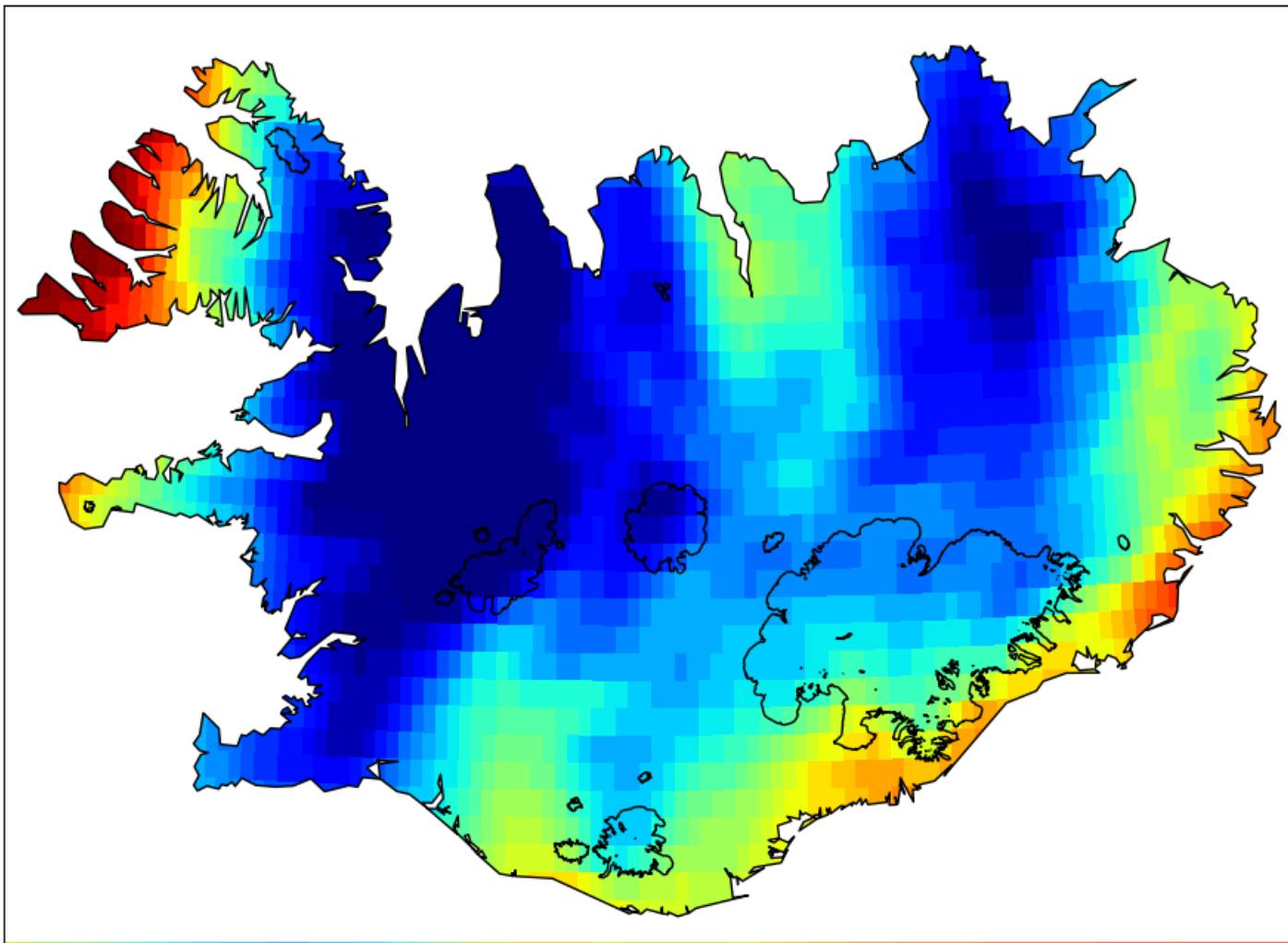
Bcor leiðréttingarstuðlar

EC-HRES

Bcor leiðréttingarstuðlar fyrir 255 veðurathugunarstöðvar 2021-10-12 12:00 spátími 12 klst

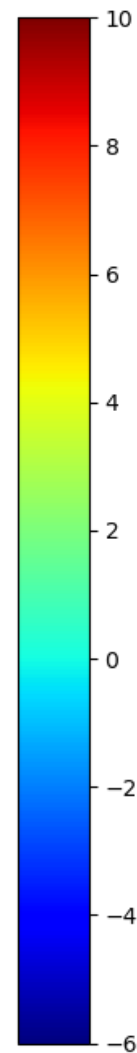
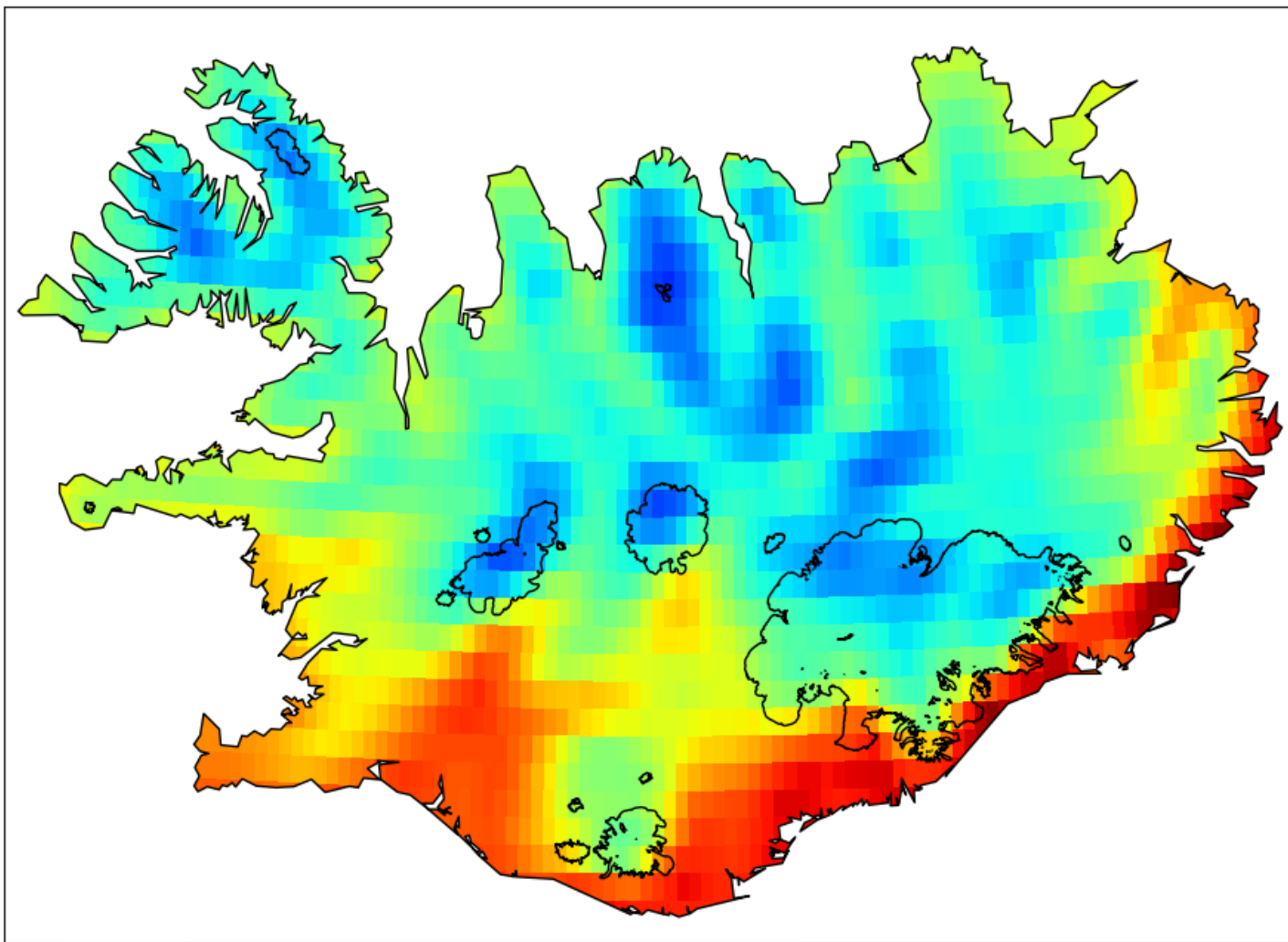


Leiðrétting á EC-HRES greiningu 2021-10-13 00:00: spátími 12 klst

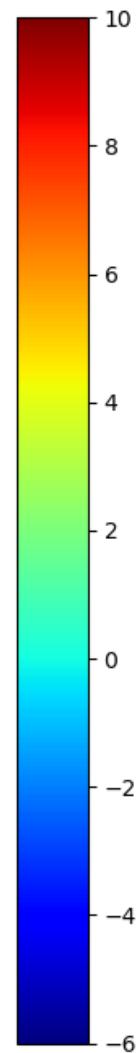
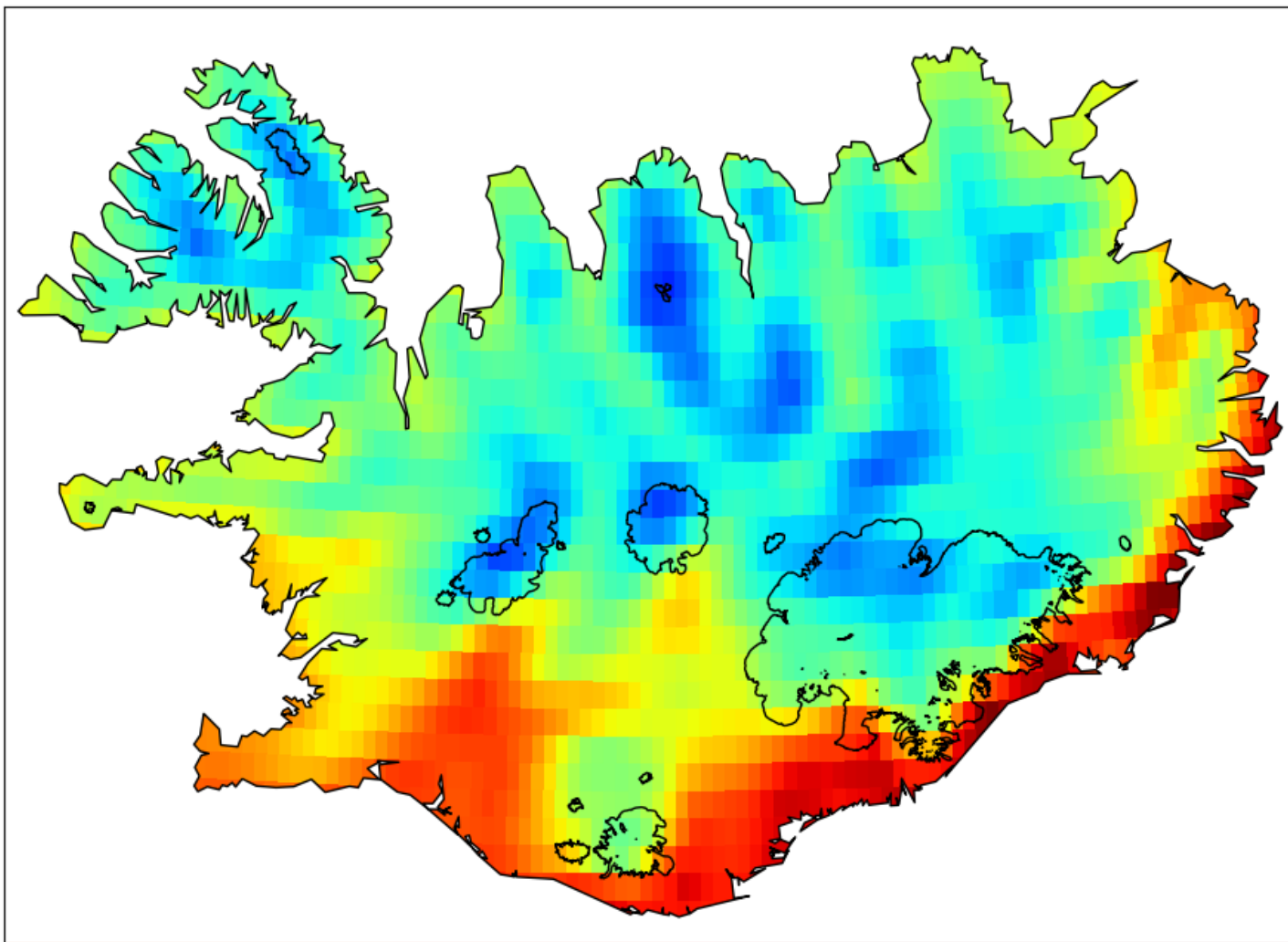


Bcor leiðréttingarstuðlar EC-HRES

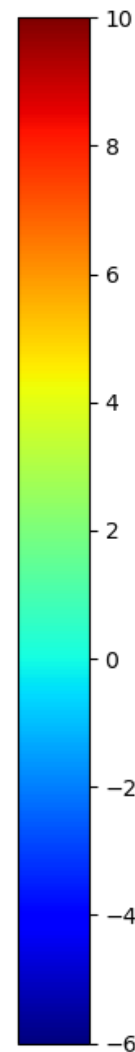
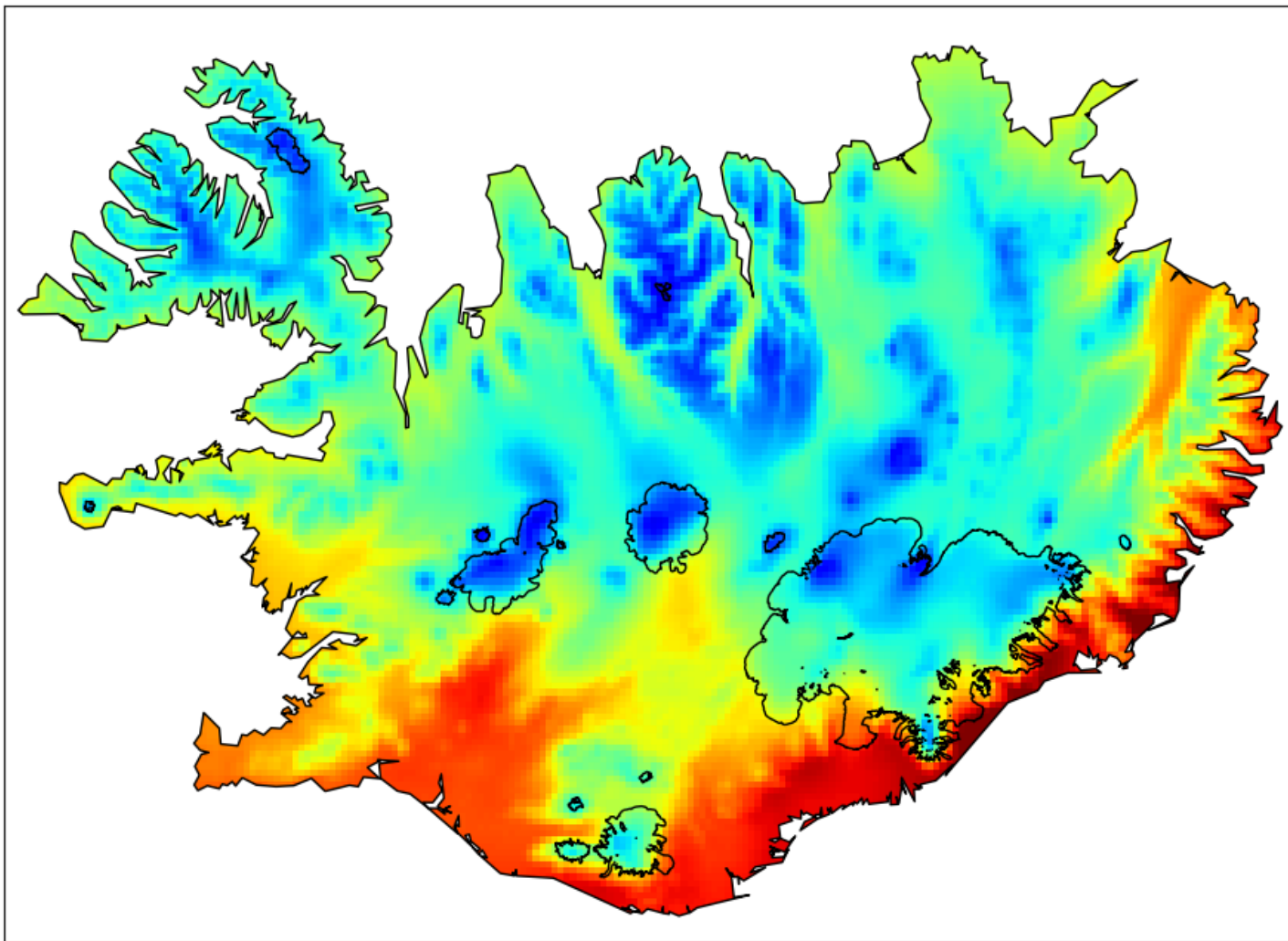
Áhrif á spá



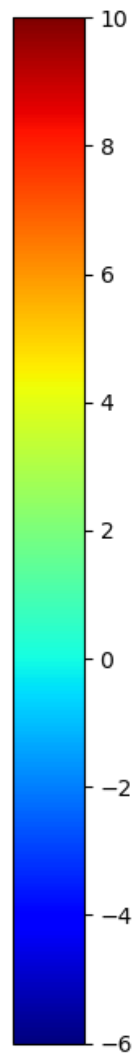
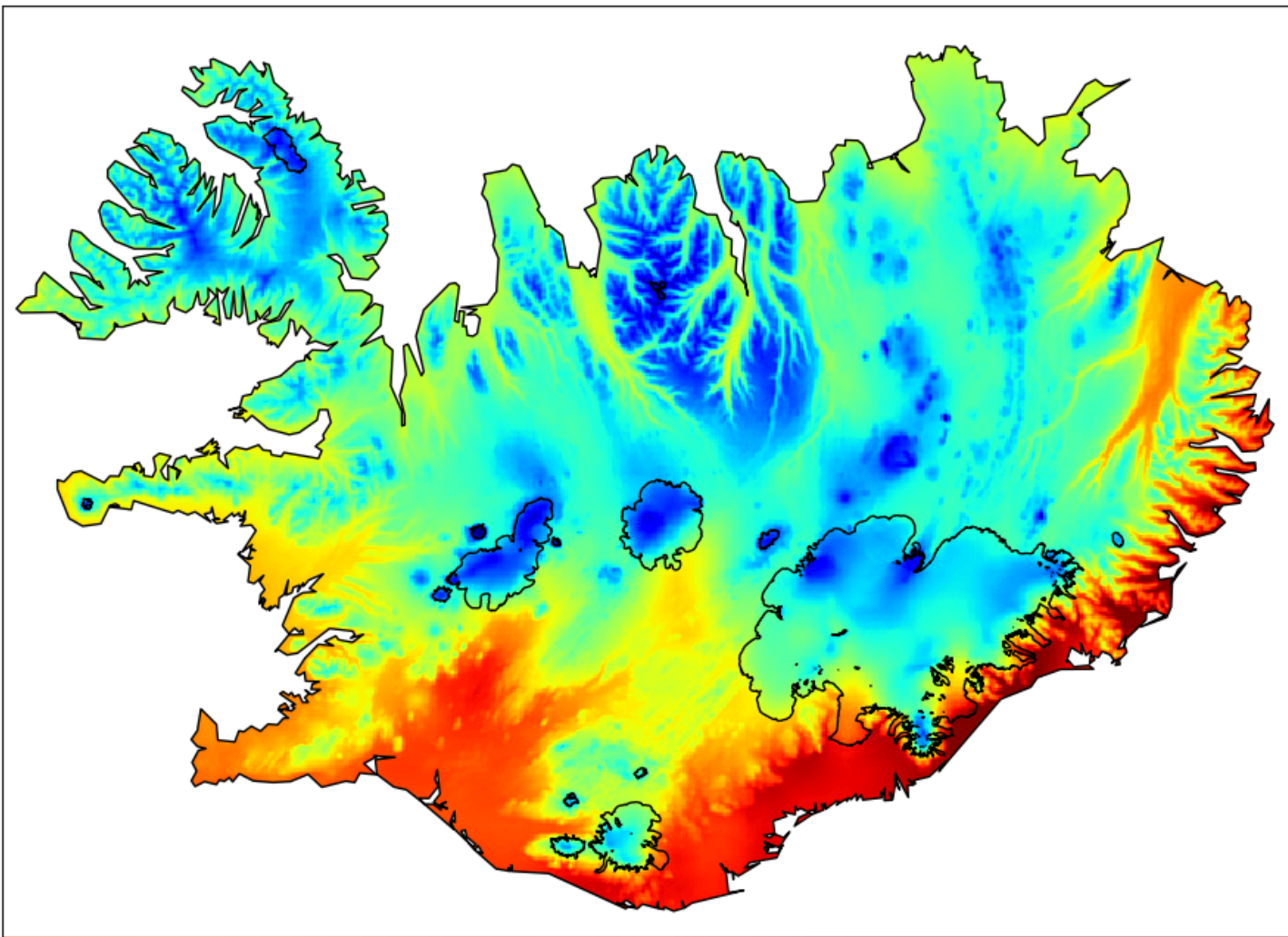
EC-HRES leiðrétt greining 2021-10-13 00:00: spátími 12 klst



EC-HRES leiðrétt greining á neti Harmonie líkansins 2021-10-13 00:00: spátími 12 klst



EC-HRES leiðrétt greining á neti HM750m líkansins 2021-10-13 00:00: spátími 12 klst



Takk fyrir áheyrnina

Spurningar?