



Klima jadranske regije u njenom globalnom kontekstu

Climate of the Adriatic region in its global context (CARE)

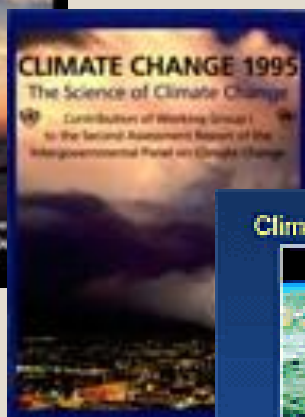
Mirko Orlić

*Geofizički zavod „Andrija Mohorovičić”
Prirodoslovno-matematički fakultet
Sveučilište u Zagrebu*

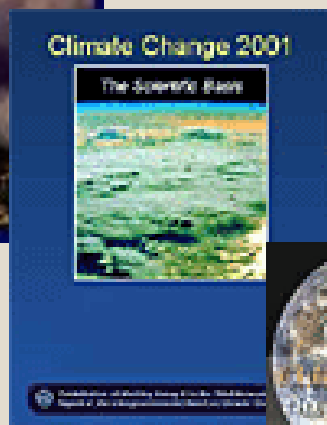
Međuvladin odbor za klimatske promjene – Prva radna grupa (Intergovernmental Panel on Climate Change, IPCC – Working Group I)



1990.



1995.



2001.

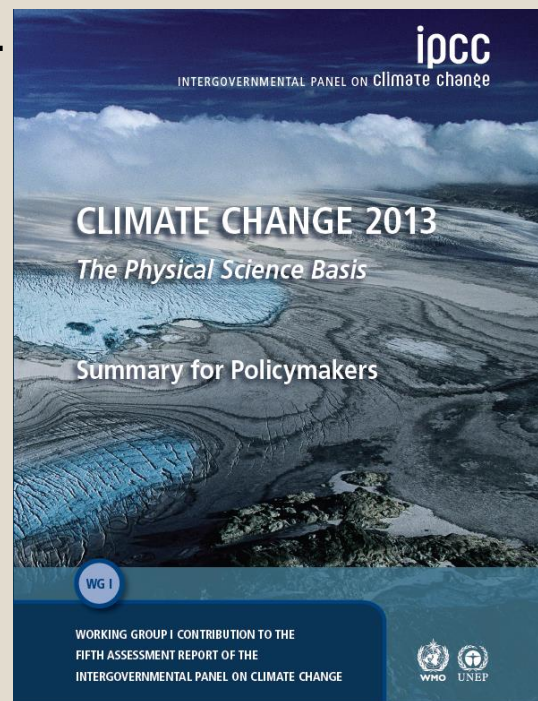


Nobelova nagrada (2007.)



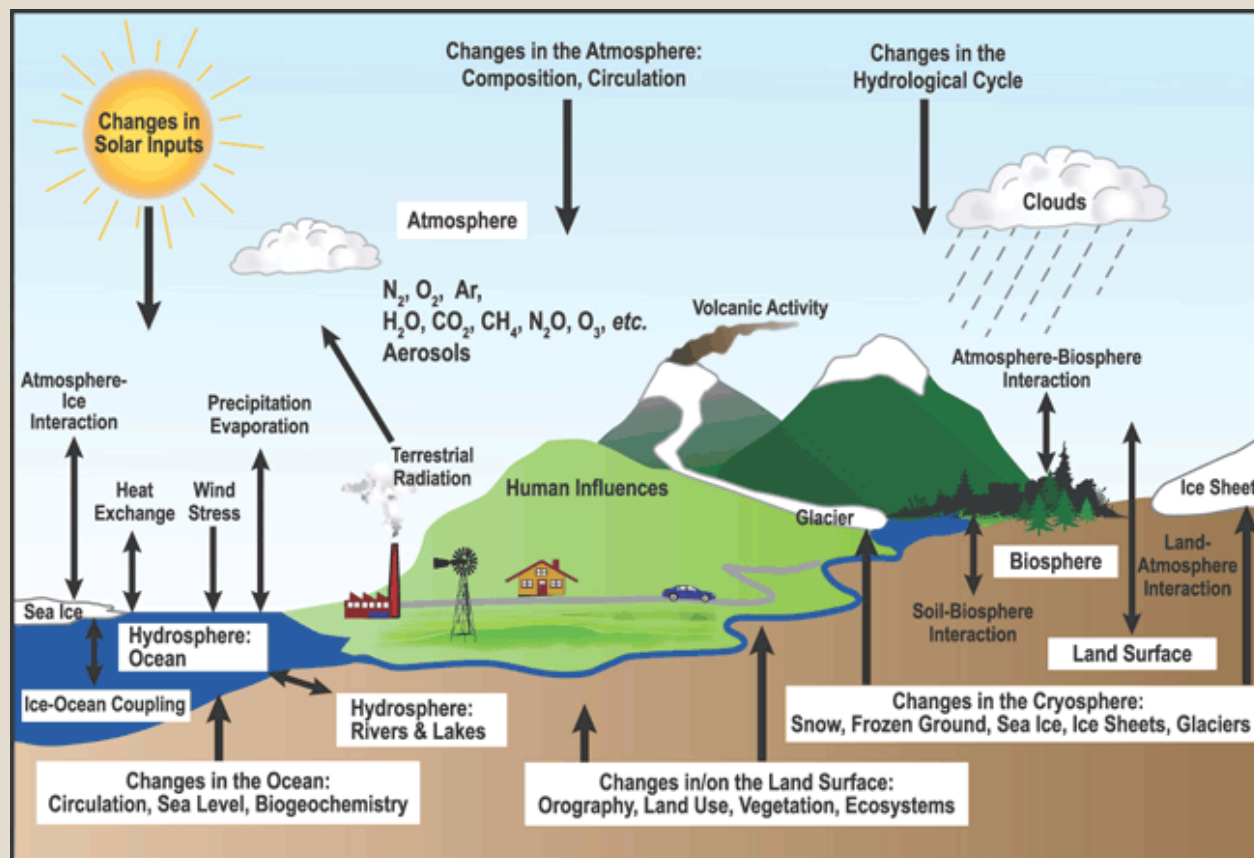
2007.

2013.



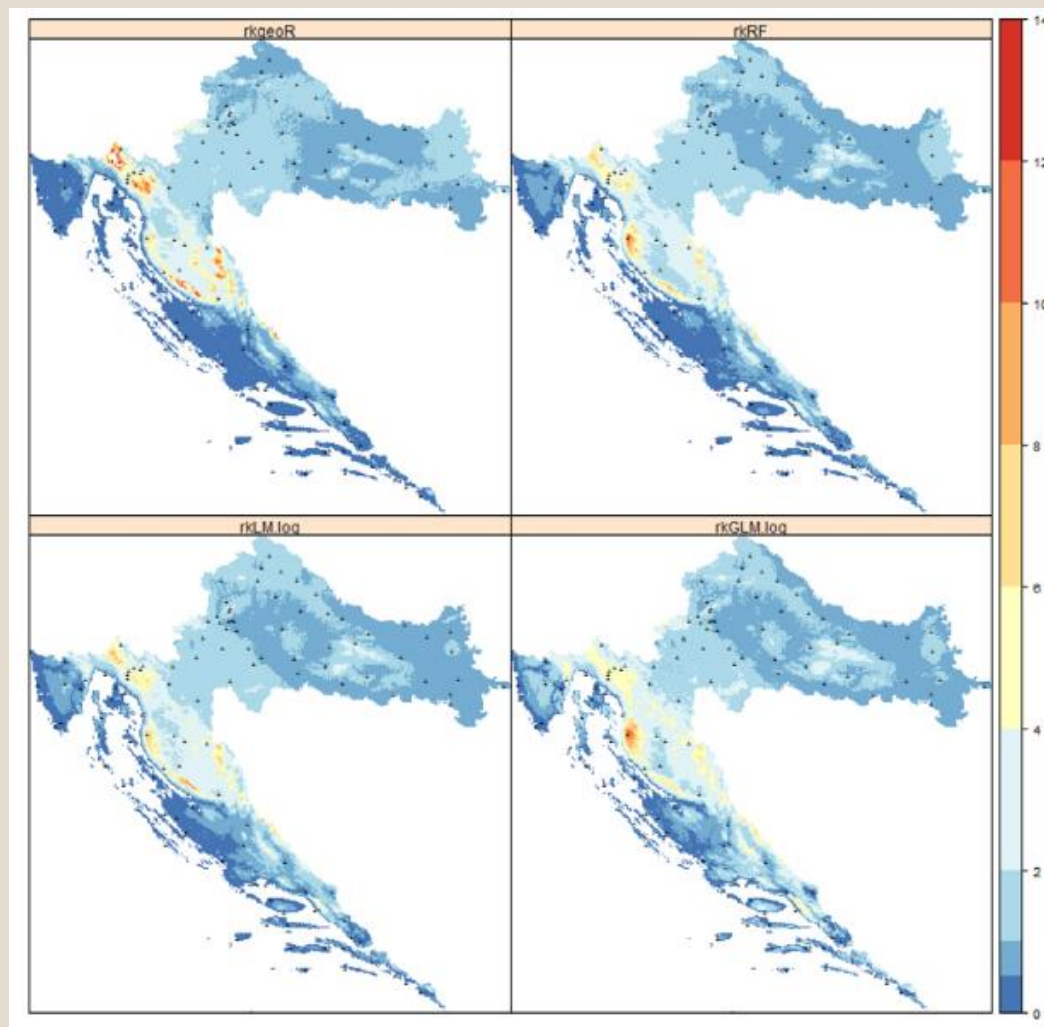
- 1535 stranica
- 9200 publikacija
- 259 vodećih autora
- 600 ostalih autora
- 1089 recenzenata
- 39 država
- 54677 komentara

Klimatski sustav



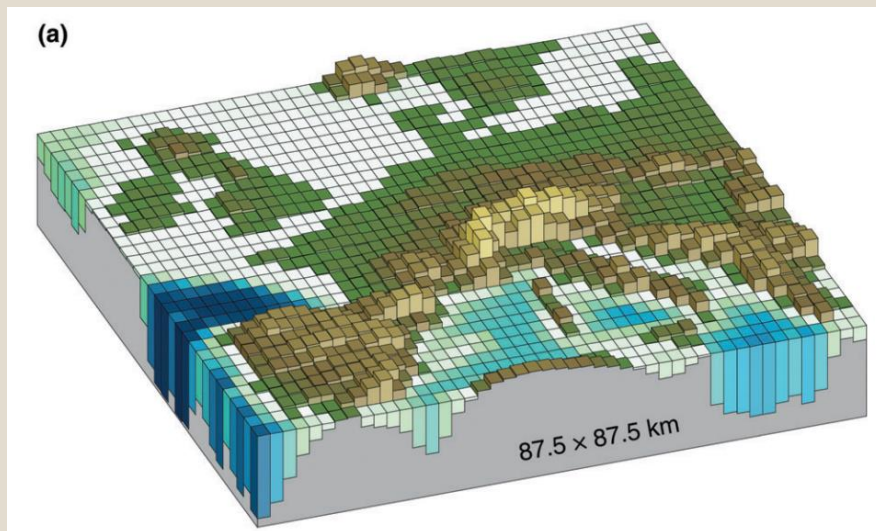
- **Atmosfera**
- Oceani i mora
- Rijeke i jezera
- Podzemne vode
- Kopno
- Kriosfera
- Biosfera

Opterećenje snijegom (kN/m^2) uz 50-godišnji povratni period

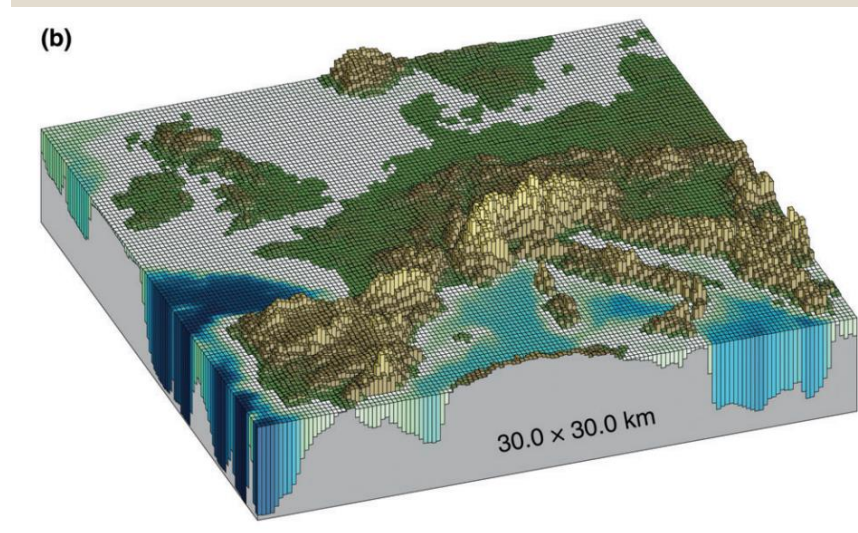


M. Perčec Tadić, K. Zaninović, R. Sokol Jurković (2015)
Spatial Statistics, 14, 53–69.

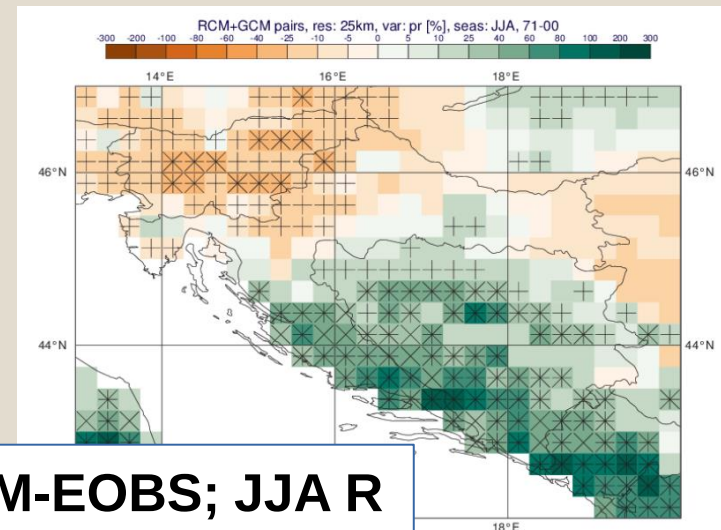
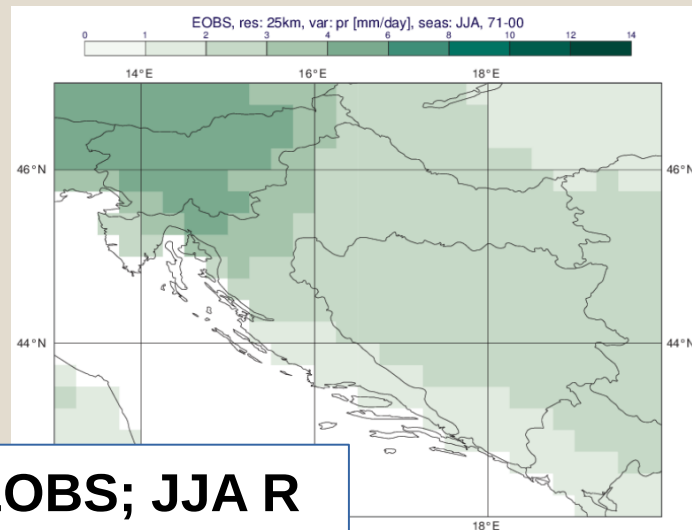
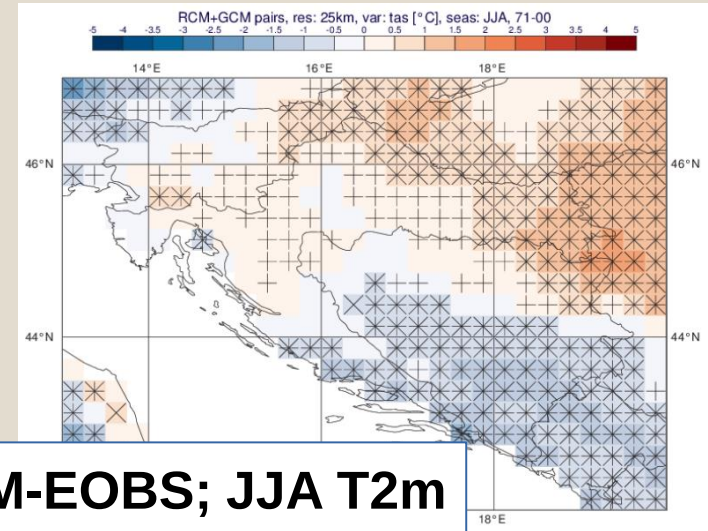
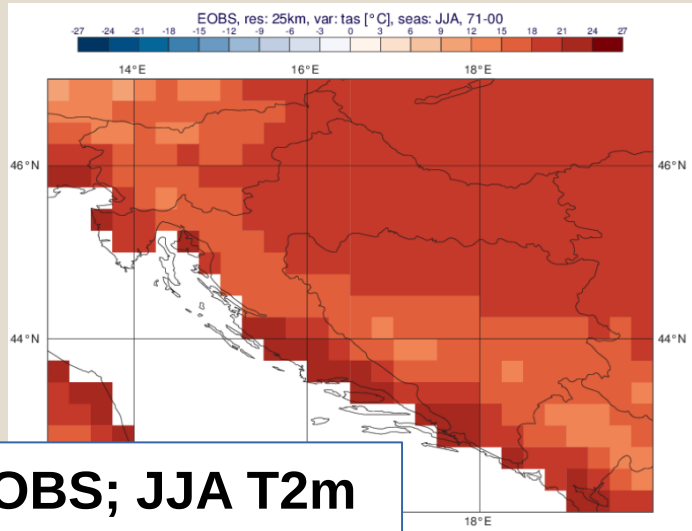
Numeričko modeliranje uz različite prostorne rezolucije



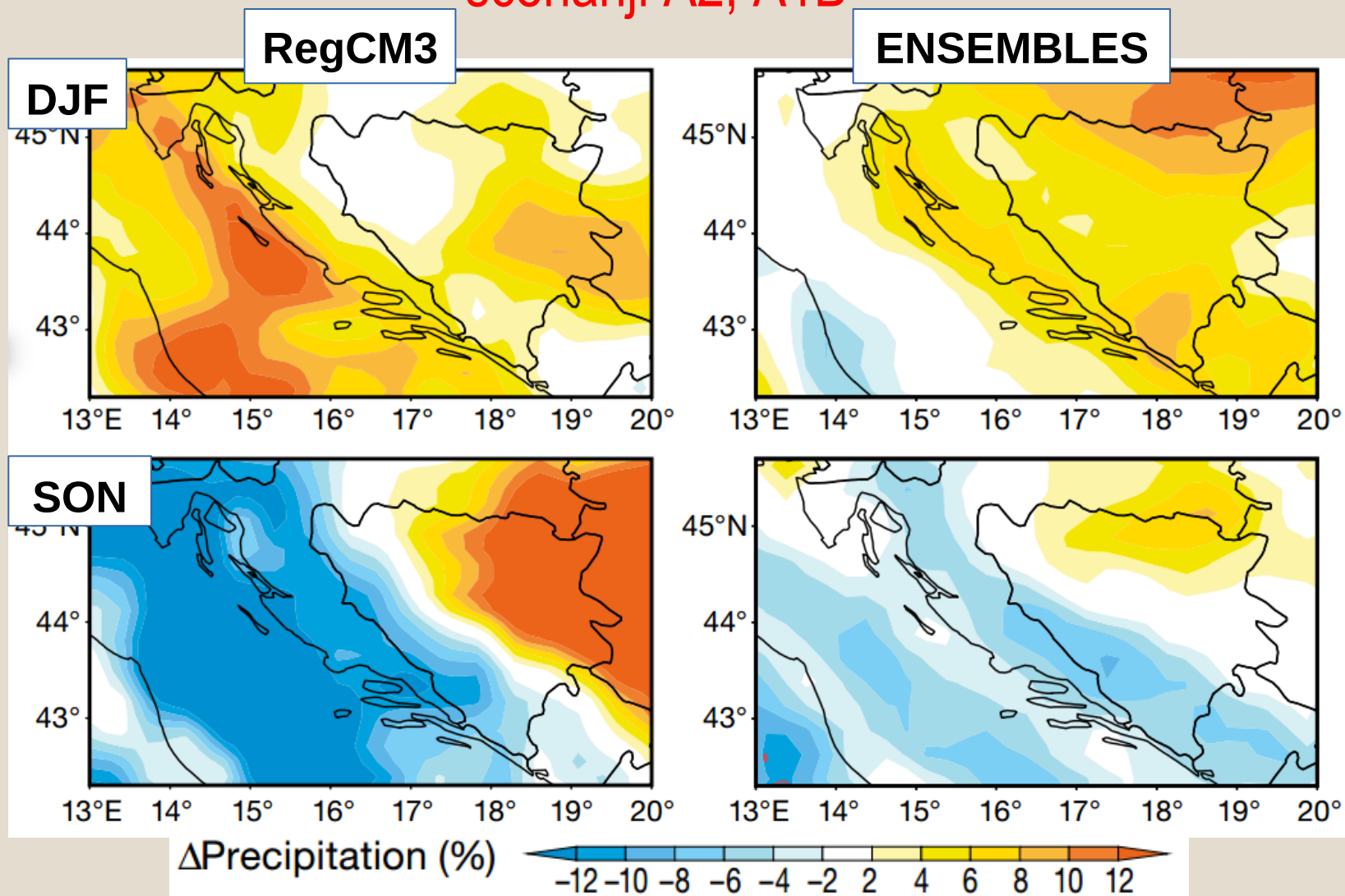
M. Rummukainen (2016)



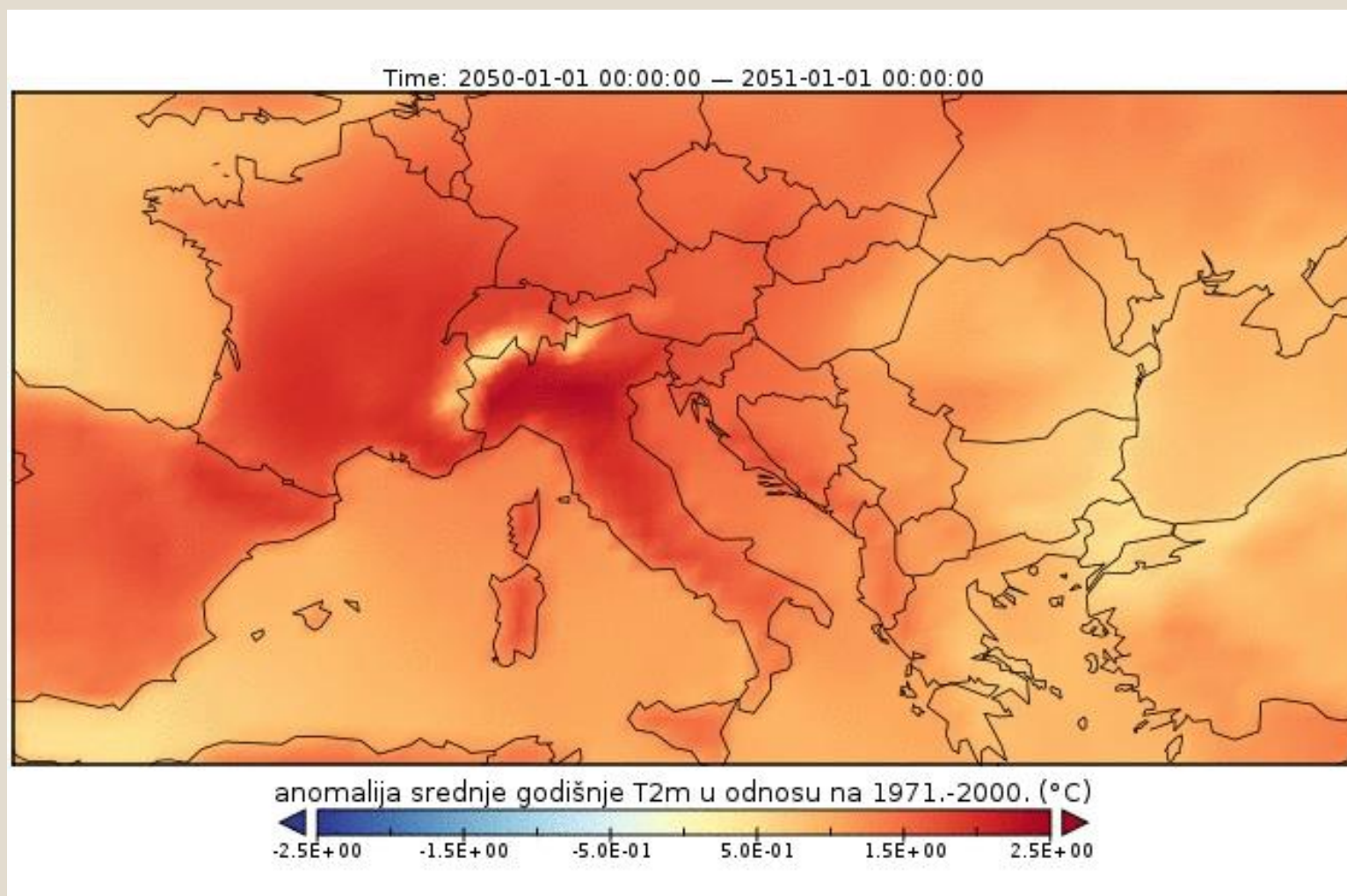
Usporedba opažanja i rezultata modeliranja (1971.–2000.)



Projekcije količine oborine (1961/1990.–2011/2040.), scenariji A2, A1B

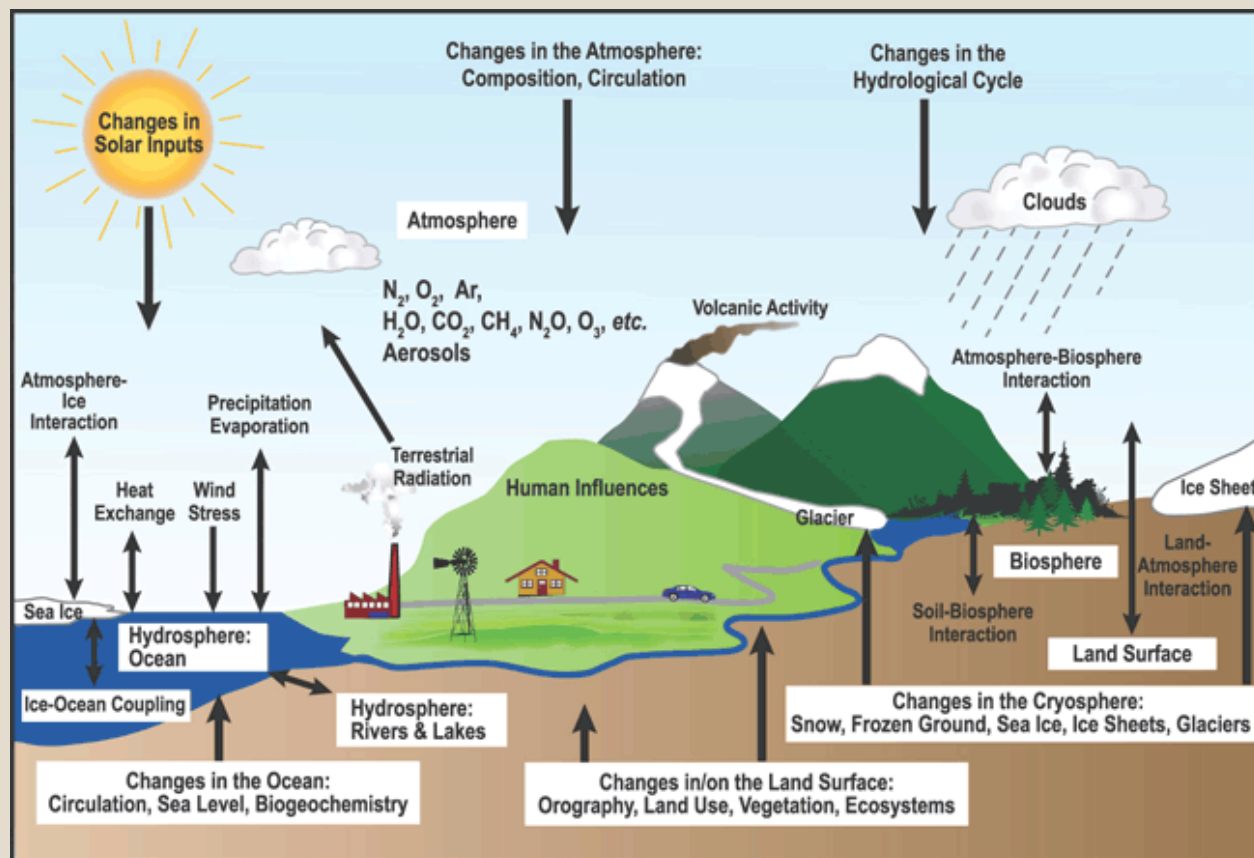


Simulacije temperature za razdoblje od 1970. do 2050.



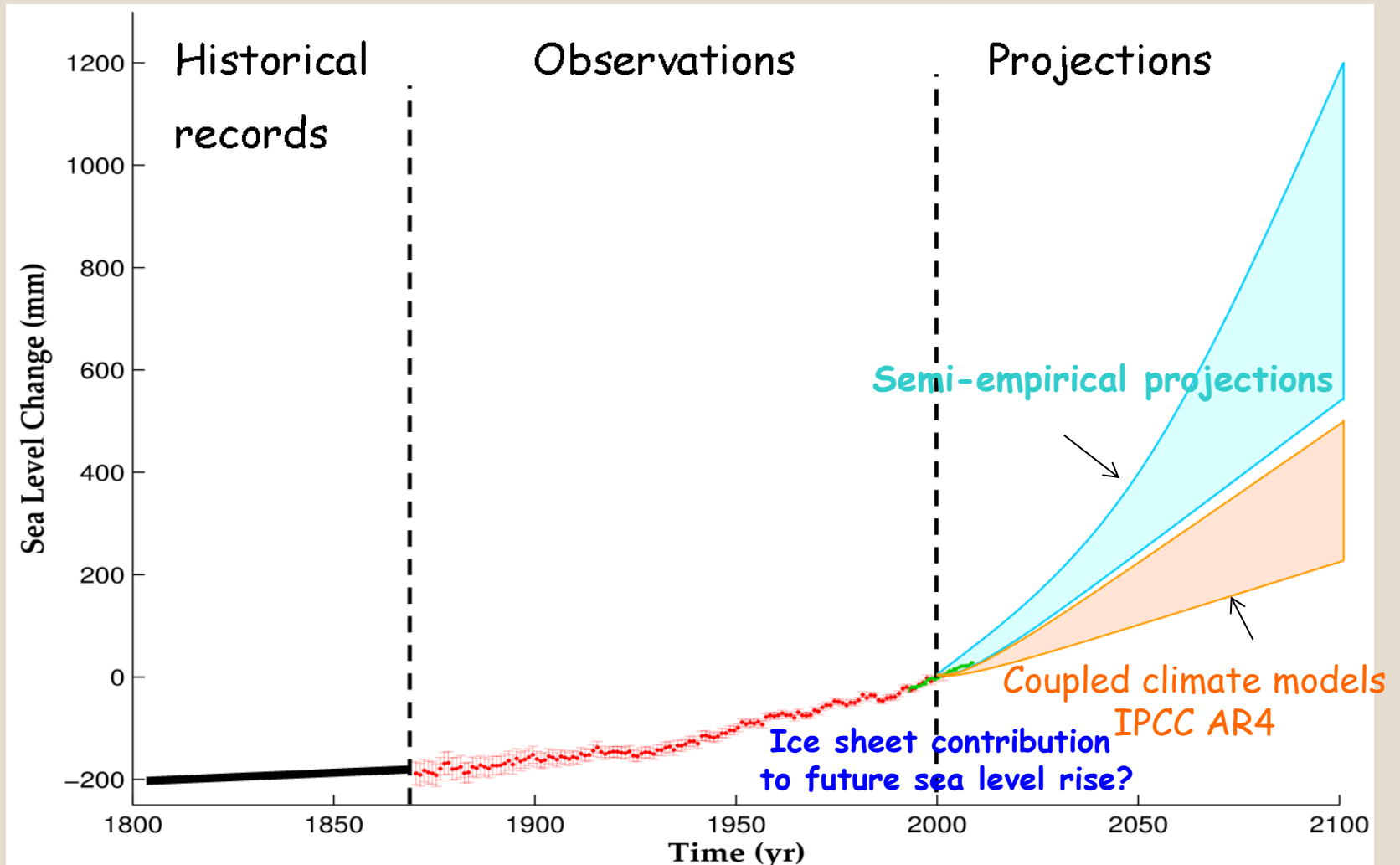
RCM RegCM4 (12.5 km) + CMIP5 GCM EC-Earth
1970.–2005.: izmjerene koncentracije stakleničkih plinova
2006.–2050.: IPCC scenarij RCP4.5

Klimatski sustav

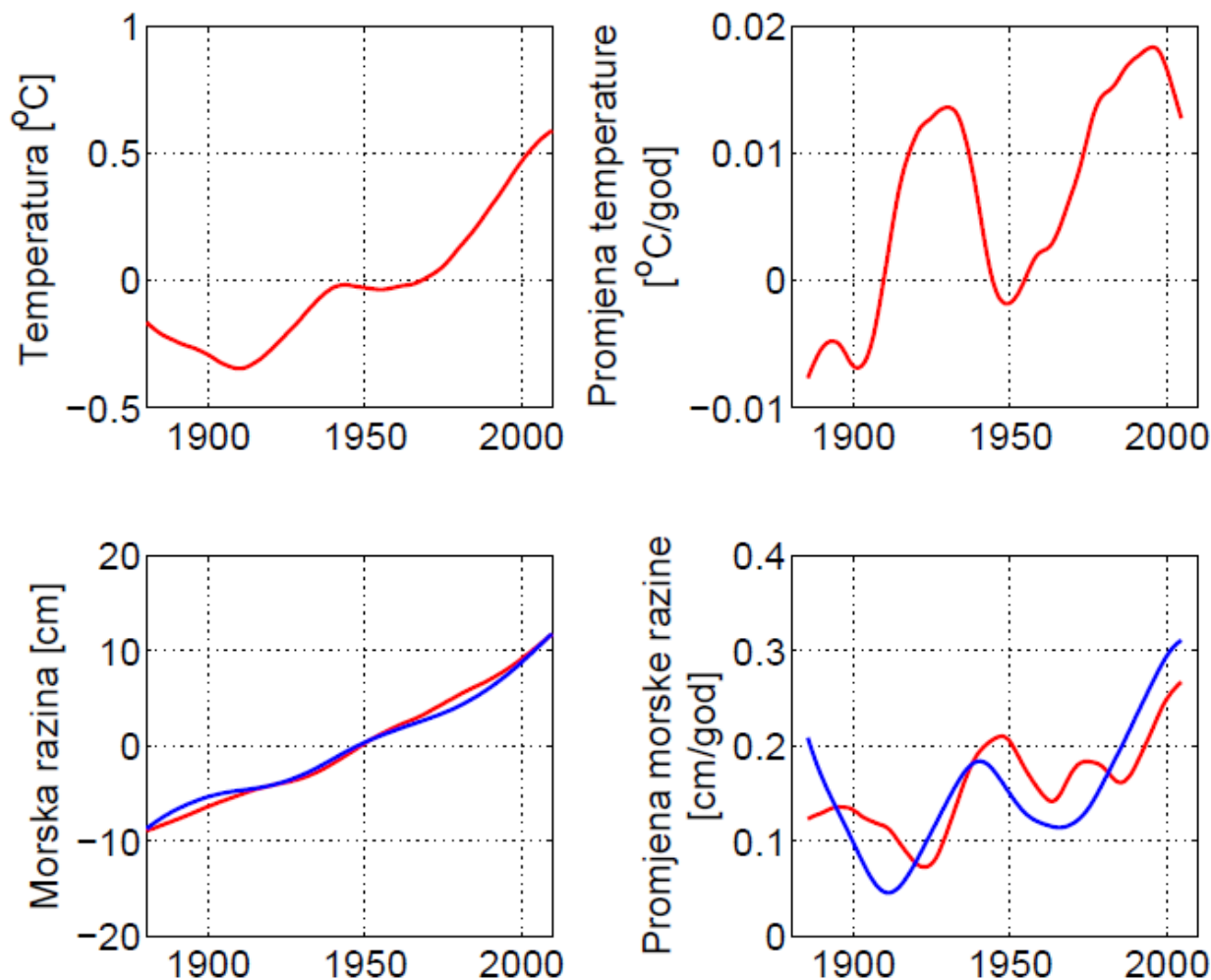


- Atmosfera
- Oceani i mora
- Rijeke i jezera
- Podzemne vode
- Kopno
- Kriosfera
- Biosfera

Analize i projekcije globalne morske razine

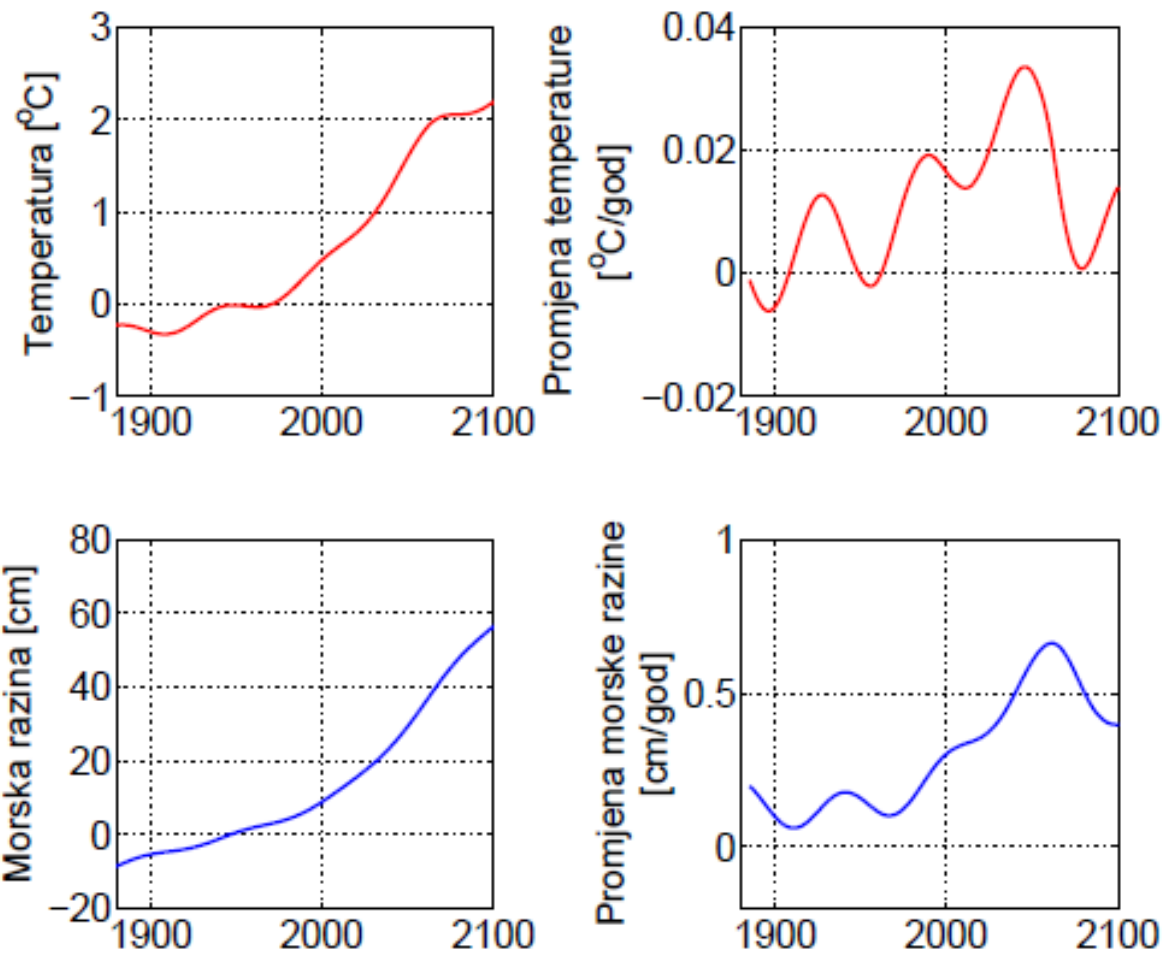


Povezanost globalne morske razine s globalnom temperaturom



$$I \frac{d\eta}{dt} + E\eta = \tau$$

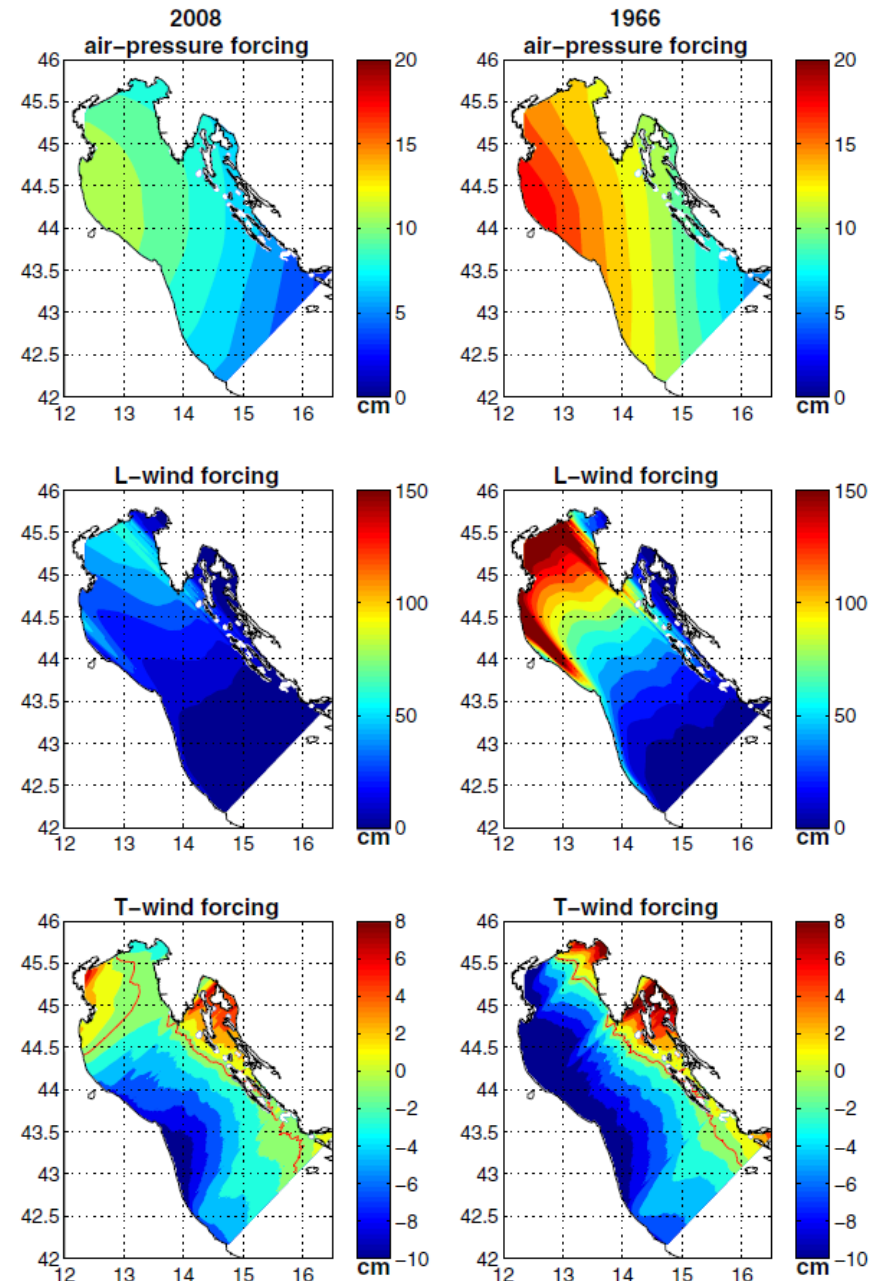
Projekcije uz scenarij RCP4.5



Neki nedavni slučajevi poplavljivanja obalnog područja

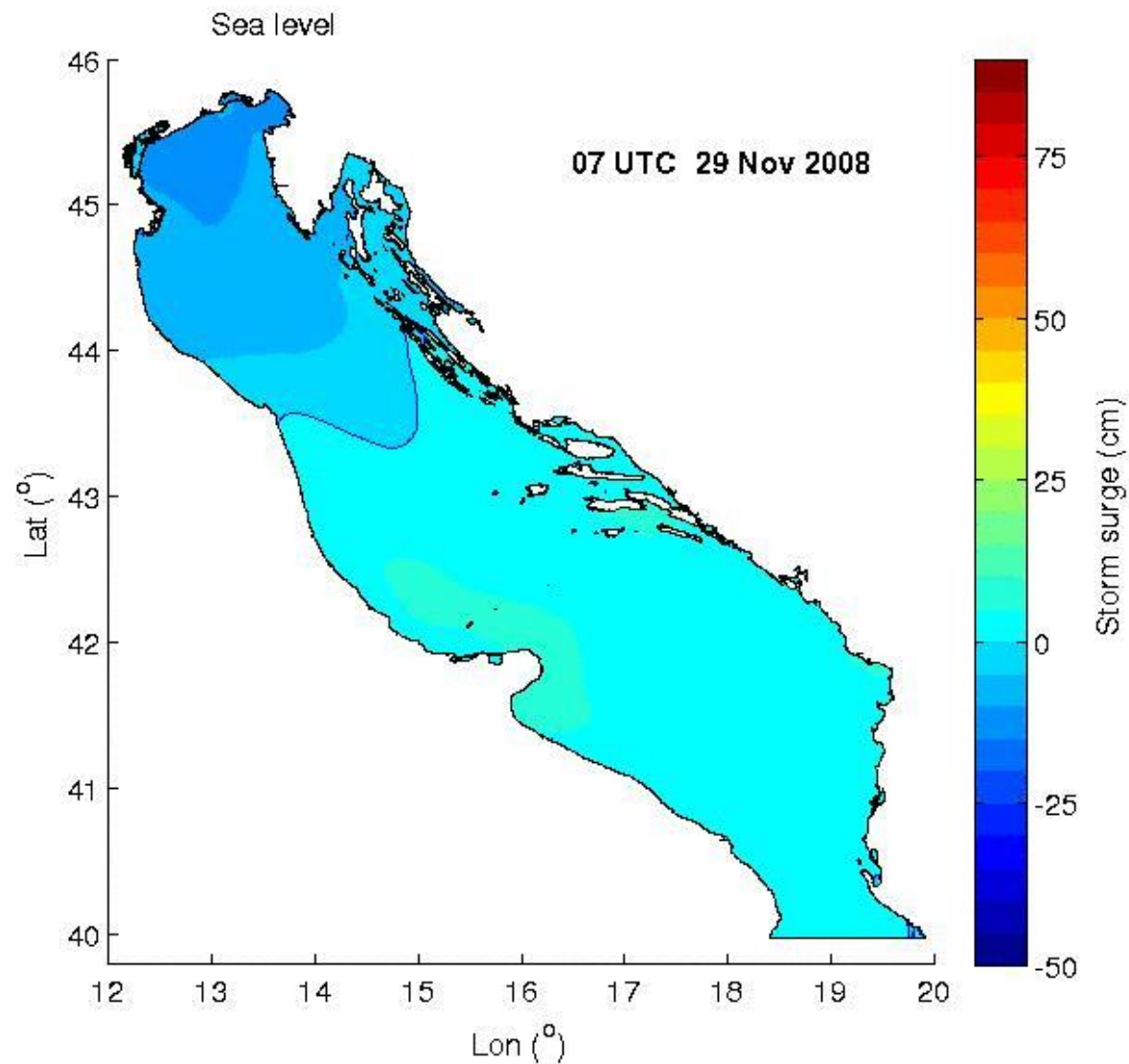


Utjecaj tlaka zraka i vjetra na visinu morske razine



I. Međugorac, M. Pasarić, M. Orlić (2015)
Ocean Dynamics, 65, 817–830.

Simulacija poplave od 1. prosinca 2008.





Suradnici na projektu CARE



Geofizički odsjek, Prirodoslovno-matematički fakultet, Sveučilište u Zagrebu
Državni hidrometeorološki zavod, Zagreb