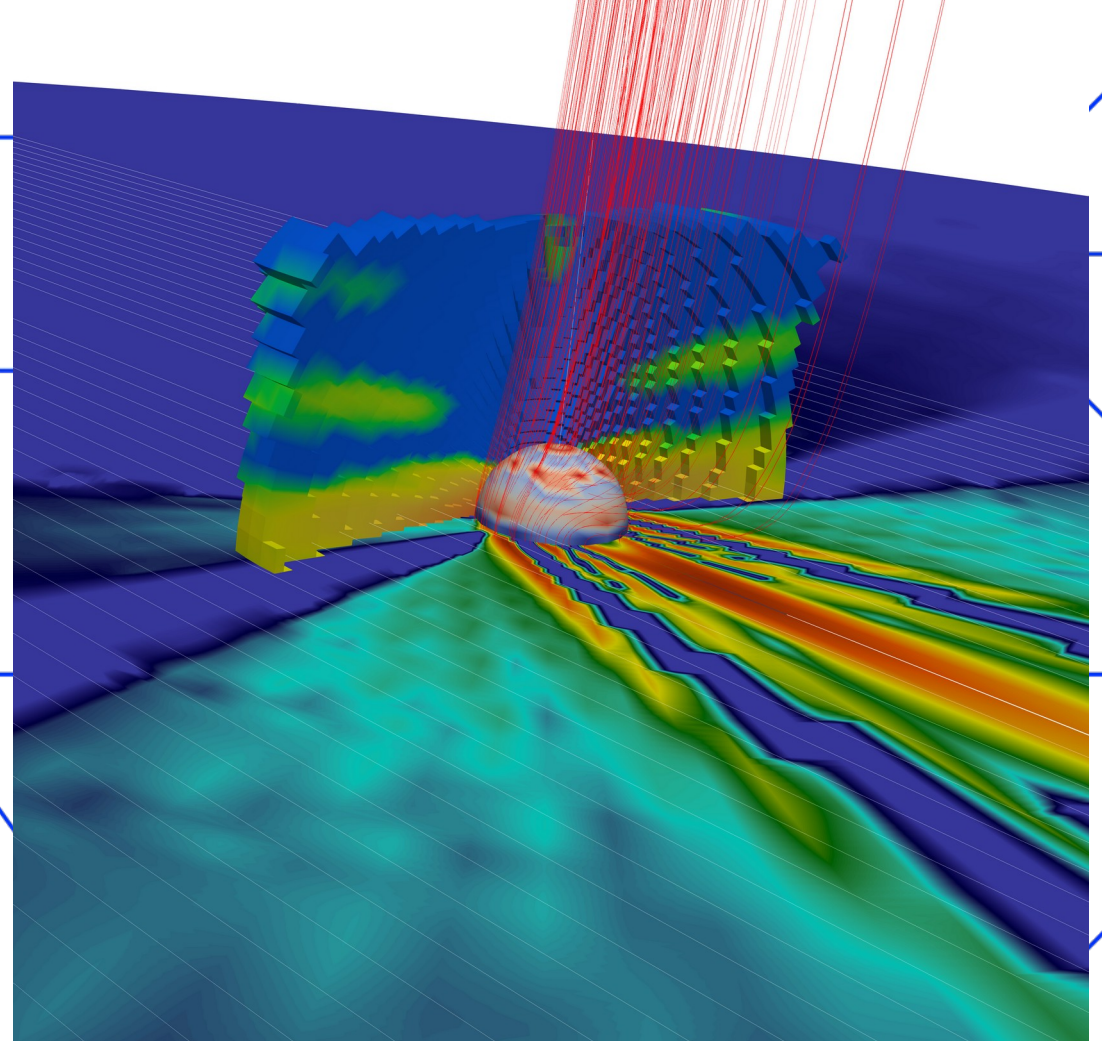




Radio emission from auroras on planets around pulsars

Miljenko Čemeljić

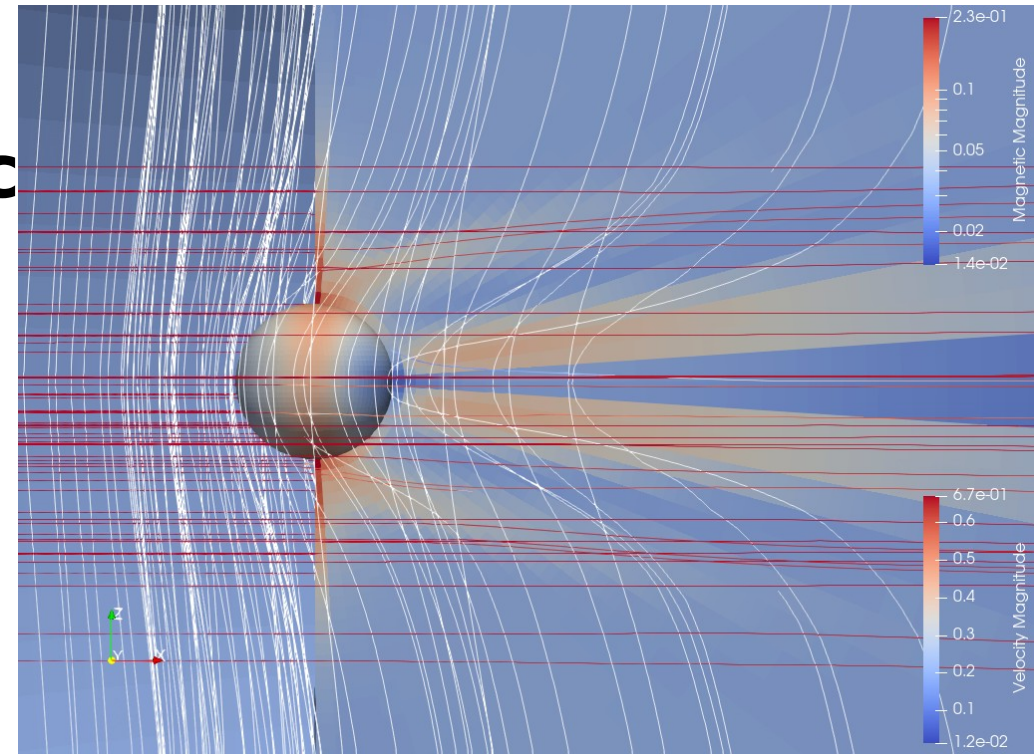
Nicolaus Copernicus Astronomical Center, Polish
Academy of Sciences, Warsaw, Poland



*Nicolaus Copernicus
Astronomical Center*
of the Polish Academy of Sciences

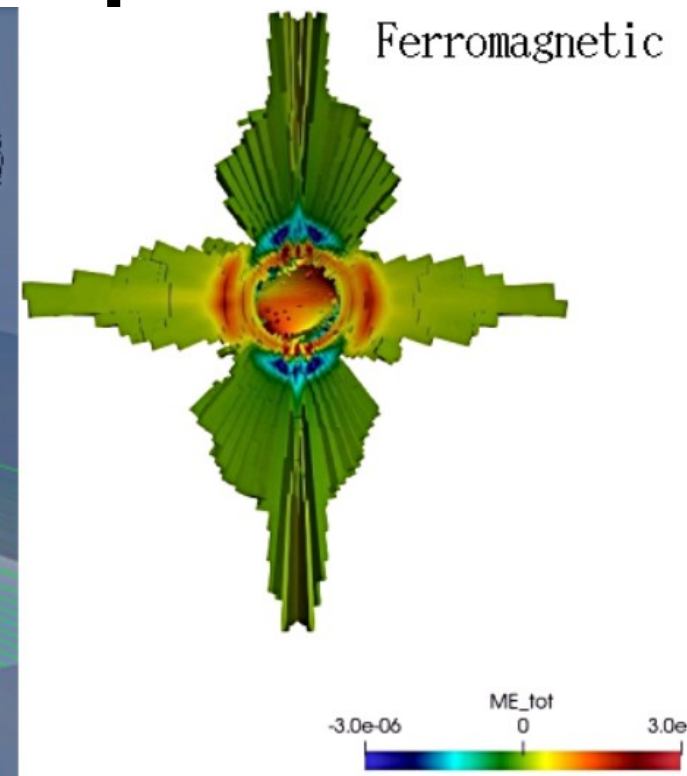
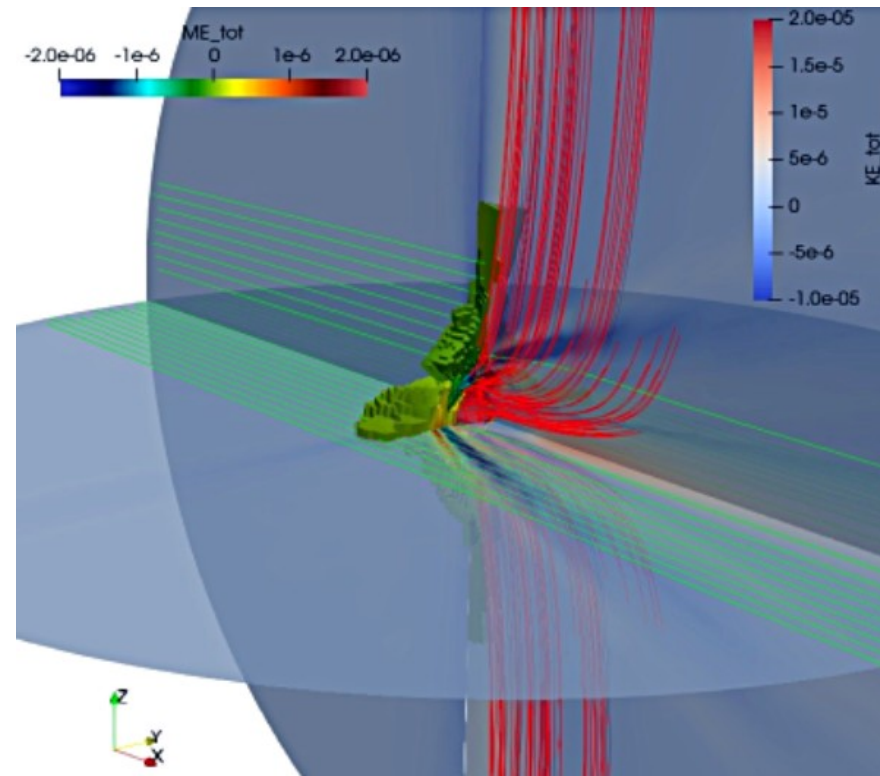
Pulsar planets & auroras

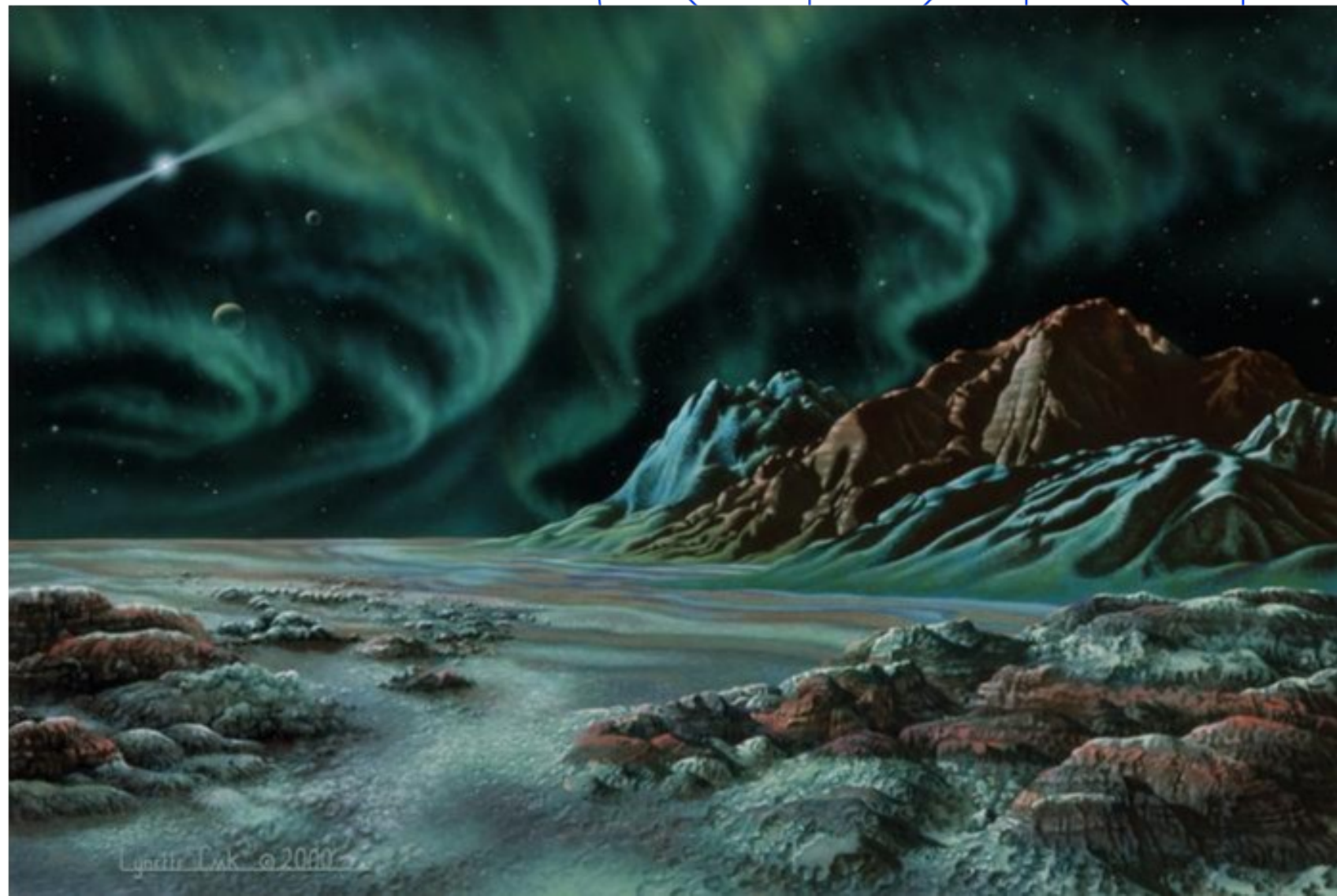
- Since the radio emission from an aurora is proportional to the strength of the magnetic field, planets around pulsars are the best candidates for the detection of auroral radio emission from distant exoplanets.
- We performed the first MHD **simulations of magnetospheric pulsar-planet interaction** and estimated the radio emission reaching us.



Radio emission from auroras

We found that the **radio emission from aurora on pulsar planets could be observable** with the current instruments, and provide parameters for such a detection. **It would also be the first direct probe into the pulsar wind.**





Art was faster than science in this case: ours are the first computations (2023), and this airbrush **painting is from 2000!** Check the poster for more details, it is a well informed painting!