



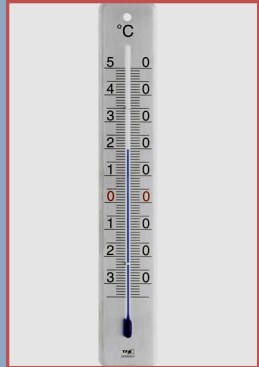
# TEMPERATURE FORECAST AND MEASURED TEMPERATURE, LUMINOSITY

Tina Iskra, Tina Pelc, Kristina Gruden, Klara Govekar, Tia Šoštarčič, Asia Živec

## INTRADUCTION

Our research goal was to discover the impact, that latitude and altitude have on temperature and light. We also researched on how big the difference is between temperature forecast and real temperature measured at certain time. We collected this information for Slovenia, Spain and Iceland.

Our hypothesis were, that the temperature is highest in Spain and lowest in Iceland, the differences between measured and forecast temperature is at all three countries between 1 and 3°C. light (measured outside) is similar in Spain and Slovenia.



## MATERIALS AND METHODES

In order to collect our data, every group needed to check the temperature forecast on day prior to measuring, on a local weather website. At 12PM (next day) one person in each group measured the real temperature outside, measured the light with mobile app called "Lux meter" and put results in a templet we provided.

After receiving the data, we compared results from each country.



## CONCLUSIONS

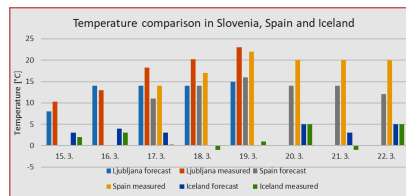
To conclude, with the help of the results from other groups, we can assume, that the average temperature was the highest in Slovenia, probably because of cyclones and anticyclones, wind etc.

The luminosity was in average higher in Slovenia, but we need to take into account, that Spanish group had different conditions in which they had measured the light.

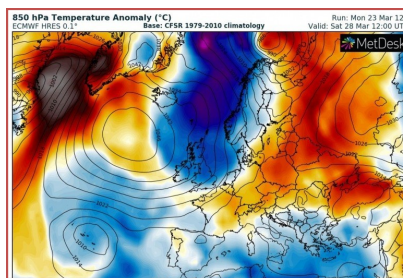
The largest difference between predicted and measured temperature was in Spain and the smallest on in Iceland.

## RESULTS

Firstly, we should inform you, that because of delayed first day, when we started with collecting data, we could only compare 3 day for all three courtiers.

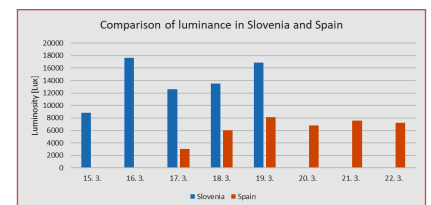


In these three days we can see that in Slovenia it was the warmest - the average temperature was 20.5°C, followed by Spain - 17.7°C. The coldest was in Iceland, with an average of 3°C (in those 3 days).



Our expectation was, that it would be the warmest in Spain, and the coldest in Iceland. We were surprised when it was the warmest in Slovenia. Such changes in temperature can be related to different heat bands on Earth, pressure - cyclones, anticyclones, winds, at which angle the rays of the Earth fall, humidity and others. All these phenomena can affect the weather.

We also researched luminosity in these three different places. Unfortunately, the Icelanders could not measure the luminosity, so we could only compare the Spanish and Slovenian results. The results show that the luminance varies greatly. Unfortunately, we cannot compare where was more light, as there would be major errors. Slovenian results were measured in a courtyard where there was no "light blocker" and Spanish results were measured in the wind - where light is stopped by an object (we assume a building / block).



The graph above show that in Spain, there are the largest differences between the predicted temperature and the measured temperature. However, the most accurate measurements were in Iceland (they differed the least). These differences are due to factors - such as the location of temperature measurement, differently accurate devices, wind power.

## ACKNOWLEDGMENTS

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