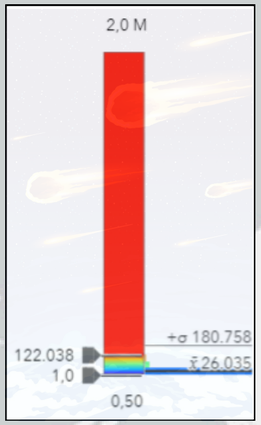
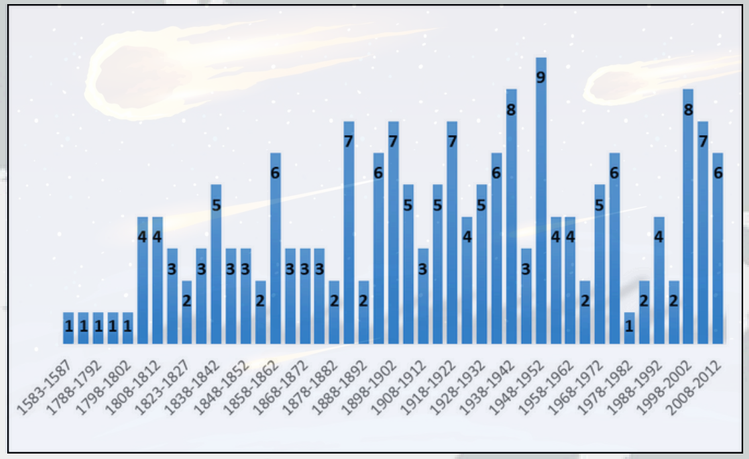
GEOSPATIAL DATA SCIENCE IN MAPPING METEORITE IMPACTS ON EARTH



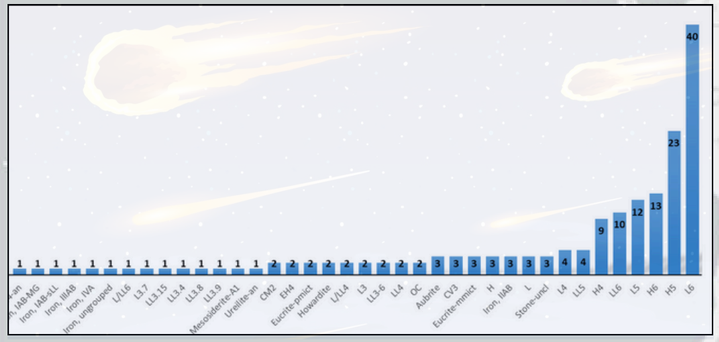
Study that investigates the phenomenon of meteorite fall by means of a detailed data analysis. The geological and topographical characteristics of the impact zones as well as the classifications and compositions of these celestial bodies are examined

We classify data by color and size of meteorites impacted on the earth by their diameter and mass

The Allende meteorite, the largest carbonaceous chondrite ever found on Earth, found near the town of Pueblito de Allende, in the state of Chihuahua, Mexico



Grouping the data we showed that in the years 1948-1952 more incidents were reported, with 1949 with 5 recorded incidents



Chondrite meteorites are classified into three main groups: H (high iron content), L (low iron content) and LL (very low iron content). Within these groups, the number (in this case, 6) indicates the degree of thermal metamorphism on a scale of 3 to 7

AFRICA	AMERICA	ASIA	EUROPA	OCEANIA
11,7%	29,6%	25,7%	31,8%	1,1%

Number of reported incidents classified by continent

CONCLUSIONS

- 31.8% of the recorded impacts were in the European continent
- Gravitational forces influence the impact zones, due to their variation on the earth. in the polar regions present a force of 9.832m/s2 unlike the equatorial zones which is 9.780m/s2
- Areas with mineral-rich soils can be considered as a possible impact area