1

2

<sup>1</sup>BRDO,

 Abstract

5 ,

15 16

17

18

19

20

21

22

23

25

26

Free is not Always Open. Making data freely available is only the first step in making it open for all to reuse. There are layers of barriers between information that anyone can get and data that anyone can use. This is because making the data open is not always about licences or the format issues, but it is also about comprehension and access. Open data should not require additional time, resources and expertise to be used.

"Open means anyone can freely access, use, modify, and share for any purpose (subject, at most, to requirements that preserve provenance and openness)."

24 ,

Based on data up to and including 1971, eruptions on La Palma happen every {r} round(avg\_years\_between\_eruptions, 1) years on average.

Studies of the magma systems feeding the volcano, save proposed that there are two main magma reservoirs feeding the Cumbre Vieja volcano; one in the mantle (30-40km depth) which charges and in turn feeds a shallower crustal reservoir (10-20km depth).

- $_{31}$  Eight eruptions have been recorded since the late 1400
- Data and methods are discus

Let x denote the number of eruptions in a year. Then, x can be modeled by a Poisson distribution

$$p(x) = \frac{e^{-\lambda}\lambda^x}{x!} \tag{1}$$

where  $\lambda$  is the rate of eruptions per year. robability of an eruption in the next t years can be calculated.

Table 1: Recent historic eruptions on La Palma

| Name               | Year |
|--------------------|------|
| Current            | 2021 |
| Teneguía           | 1971 |
| Nambroque          | 1949 |
| El Charco          | 1712 |
| Volcán San Antonio | 1677 |
| Volcán San Martin  | 1646 |

| Name                | Year |
|---------------------|------|
| Tajuya near El Paso | 1585 |
| Montaña Quemada     | 1492 |

- $_{37}$  the eruptions recorded since the colonization of the islands by Europeans in the late
- <sup>38</sup> 1400s.

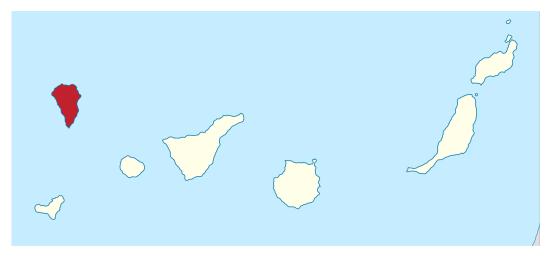


Figure 1: Map of La Palma

- La Palma is one of the west most islands in the Volcanic Archipelago of the Canary
- 40 Islan
- 2 Data & Methods
- 3 Conclusion