Nobel Laureates Finder

You are a time traveler. With your fancy time machine, you're able to move through both space **and** time. Your goal is to witness as many Nobel prize-worthy discoveries as possible. Let's build an app that helps you plan your route.

Inputs

- Coordinates anywhere on the globe as a latitude/longitude pair.
- A calendar year between 1900 to 2020, inclusive.
- The dataset of Nobel prize laureates (nobel-prize-laureates.json).

Output

20 Nobel laureates that are the closest to the given year and location, in order of ascending cost.

Considerations

- Your algorithm should exhibit a time complexity **better than quadratic** $O(n^2)$.
- You're free to preprocess data the way you want, but solution must be **optimized for multiple sequential queries**.
- Keep in mind that there is a **cost associated with traveling through both space and time**. Your time machine is capable of moving 1 year through time expending the same energy as traveling 10km along the surface of Earth. You should consider a jump of (2 years + 0km) as equivalent to (1 year + 10km) and (0 years + 20km).
- As the dataset contains only the year of a discovery (not the day or month), you may consider the cost of **travel to an event in the same year as having zero time cost**.
- Feel free to be **creative with UI**, for example providing location input can, but doesn't have to be 2 text fields for latitude and longitude, output can but doesn't have to be a table of names and dates.