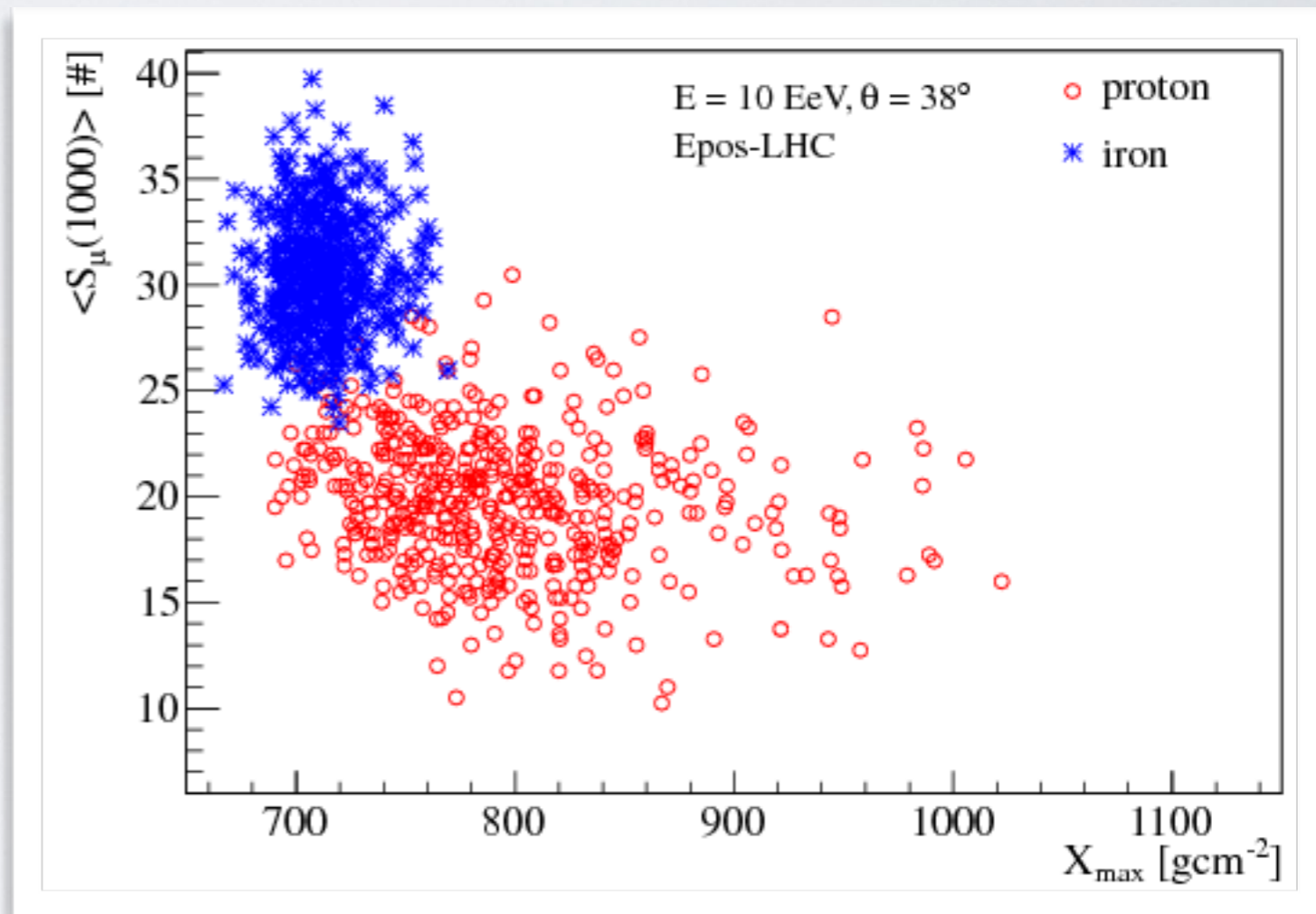


# PARTICLE COUNTERS

miguel  
penn state

# MOTIVATION

- Are particle counters the “only” way of verifying horizontal reconstruction?
- Doing physics with the prototype by measuring muons in horizontal showers.



# TANKS COMPONENTS

- Tanks
- Bladders
- PMTs (or SiPMs?)
- Read out/electronics
- Power
- Comms
- DAQ



Conclusions: 1. We need **more friends!**  
2. Strong local **participation!**

# SCALE OF THINGS...

● Dunhuang

● Lenghu

Auger



# SCALE OF THINGS...

● Dunhuang

**GP300**



● Lenghu

# SCALE OF THINGS...

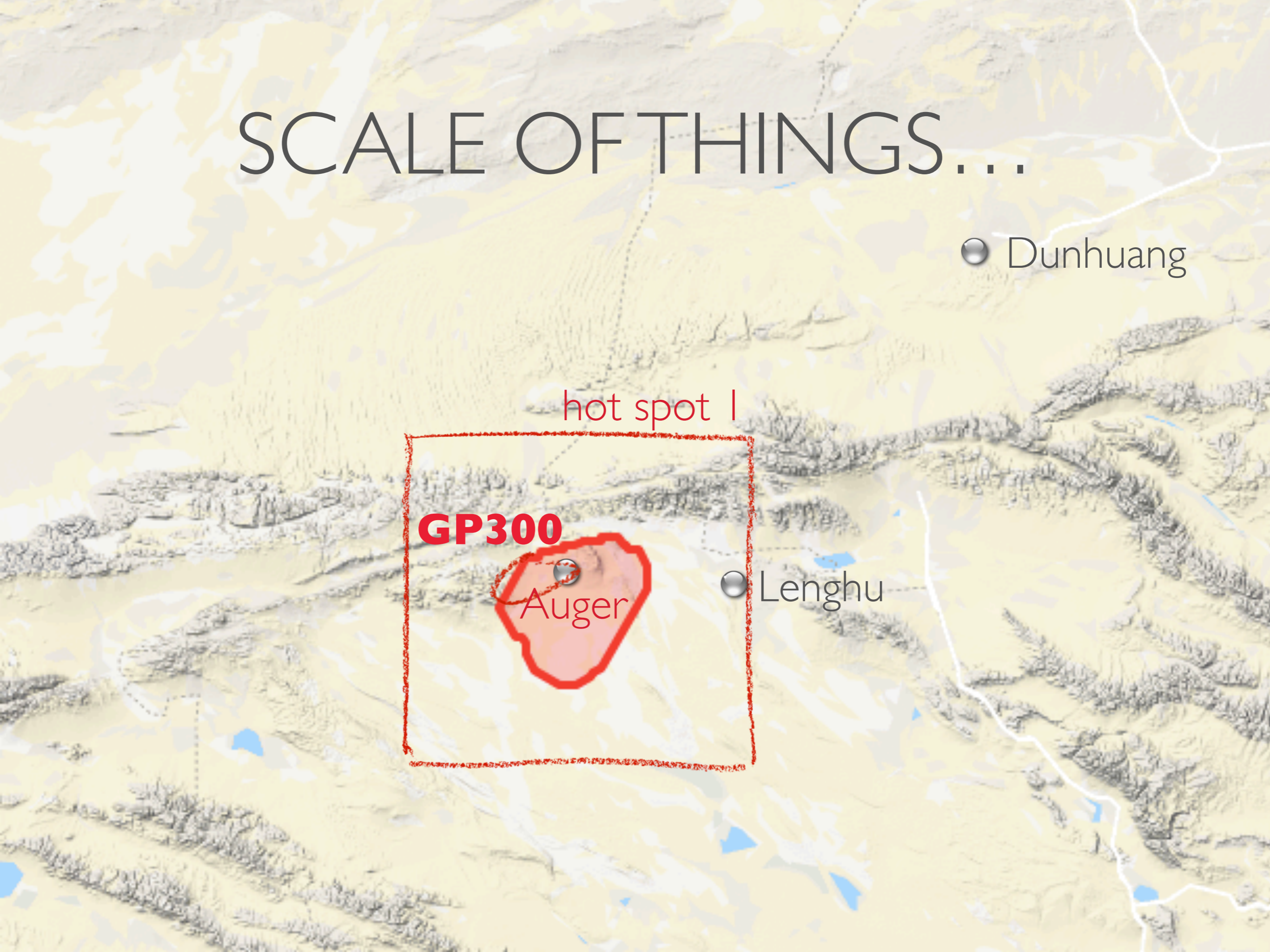
● Dunhuang

hot spot I

**GP300**

● Auger

● Lenghu



# PRACTICAL ISSUES (FOOD FOR THOUGHTS)

- Tank deployment in the desert  
(=> concrete pools?)





- Water purification + delivery



# PRACTICAL ISSUES (FOOD FOR THOUGHTS)

- Tank deployment in the desert  
(=> concrete pools?)
- Water purification + delivery
- (I'm assuming electronics+comms+DAQ could find a similar solution to the antennas.)

# TIMELINE/PLAN

- Start simulations: ~ Jun - Sep, 2019
    - ▶ Determine energy ranges
    - ▶ Define array configuration
    - ▶ Define detector design
  - Setup first prototypes ~ Summer 2020
- Volunteers, contributors, supporters are welcome!*

Time for open discussions + ideas + suggestions  
(questions too)

*Thank you very much!*