

# Data Analysis for Dark Matter Axion Star Search

## GNOME Collaboration

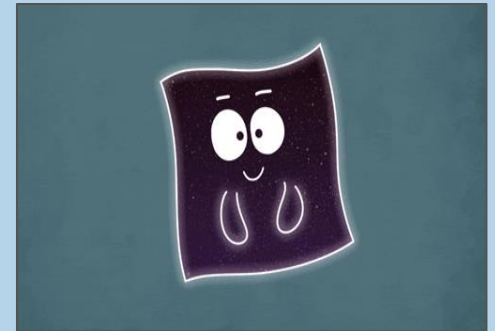


**The GNOME Experiment**  
Collaboration website

Live Data News Download Wiki Internal

Current date: 2021/07/28 20:31:49 GPS  
[Show Map Legend](#)

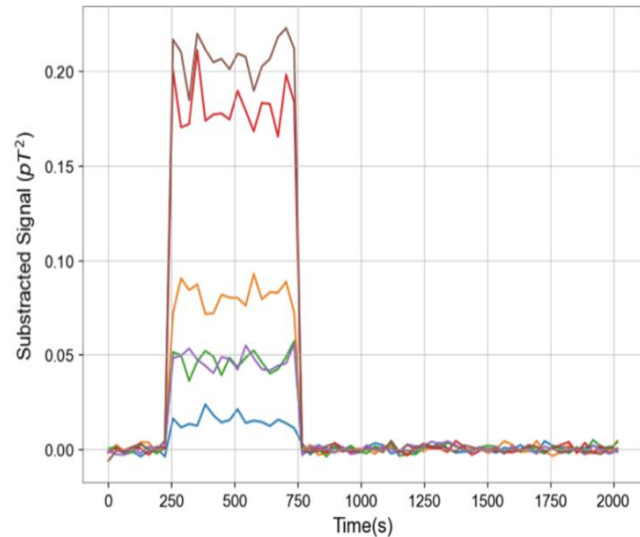
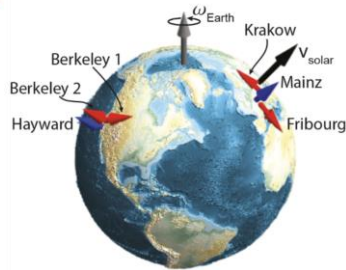
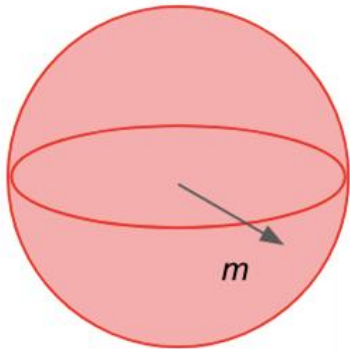
**Oberlin**  
Institution: Oberlin College  
Sensor type: Atomic Magnetometer  
Sensor: He-3/Rb/K SERF Comagnetometer  
Contacts: Jason Stalnakar  
Coordinates: 41.295234 N, 82.220283 W



Dhruv Tandon

# Search Target is a Transient Oscillatory Signal

$$H_{\text{lin},i} = \frac{\hbar c}{f_{\text{lin},i}} \mathbf{S}_i \cdot \nabla a$$



- Limit the effective amplitude (coupling)
- Limit the rate of encounter