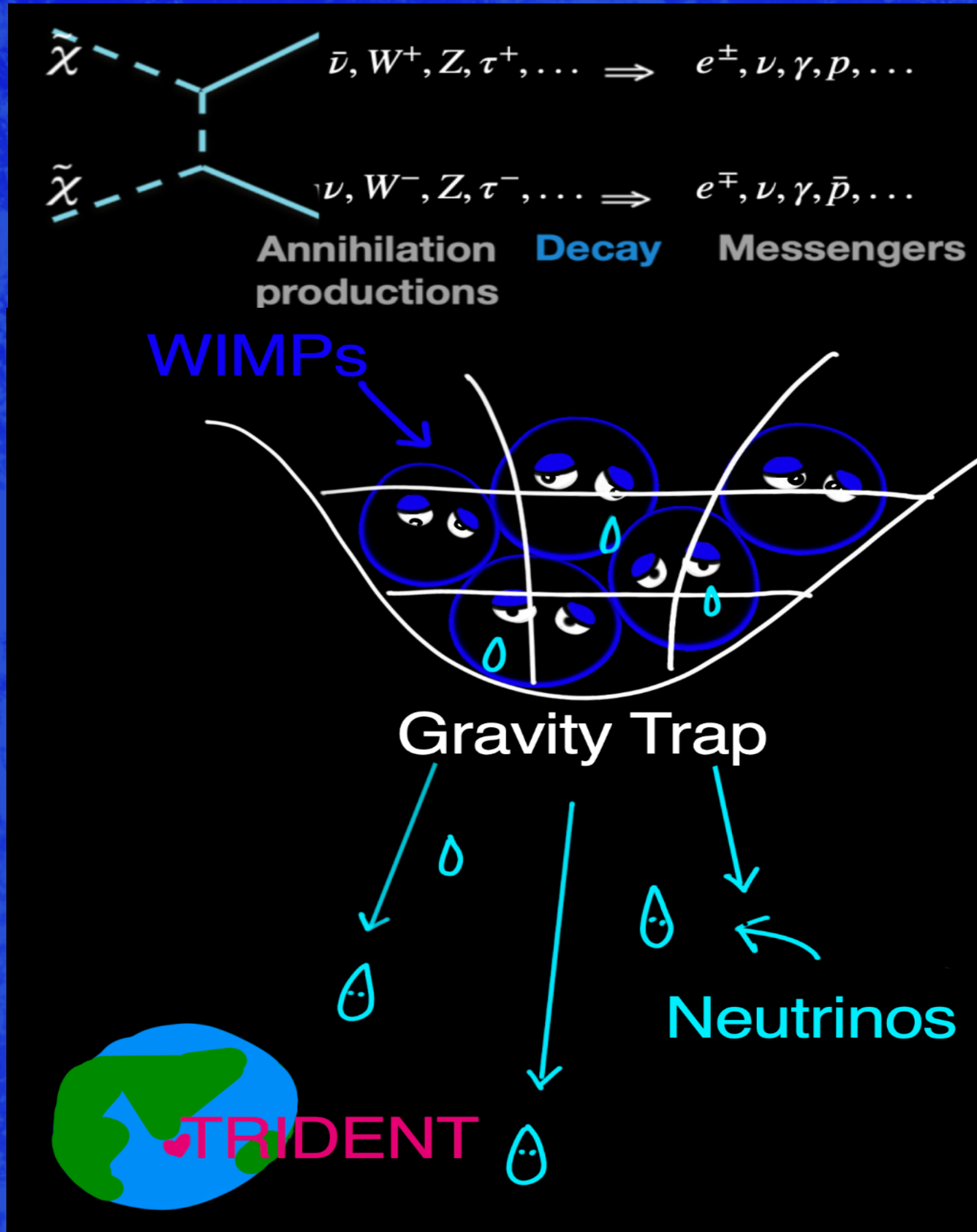


# Probing Dark Matter Annihilation in the Galactic Centre with TRIDENT



## Indirect Searches of WIMPs

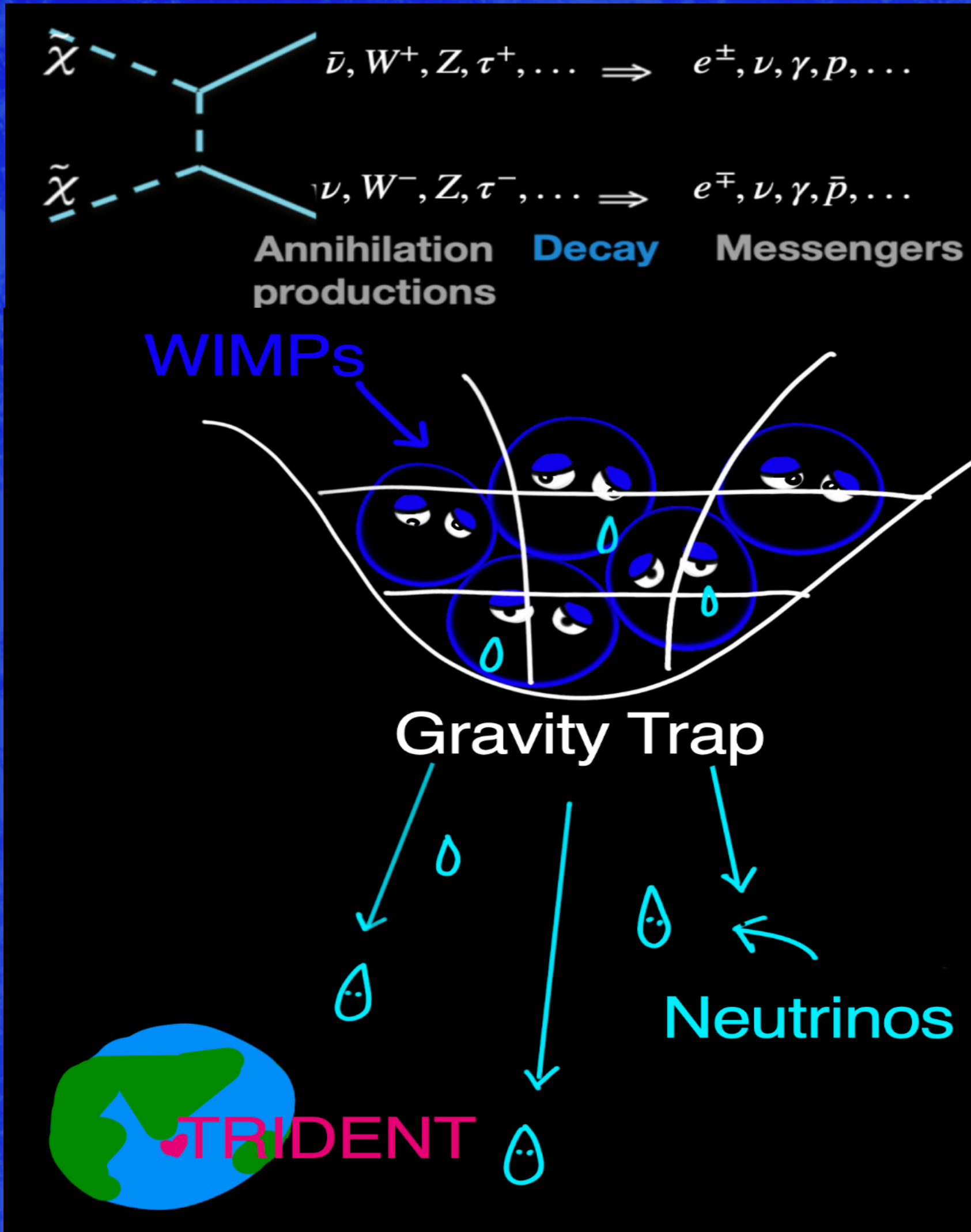




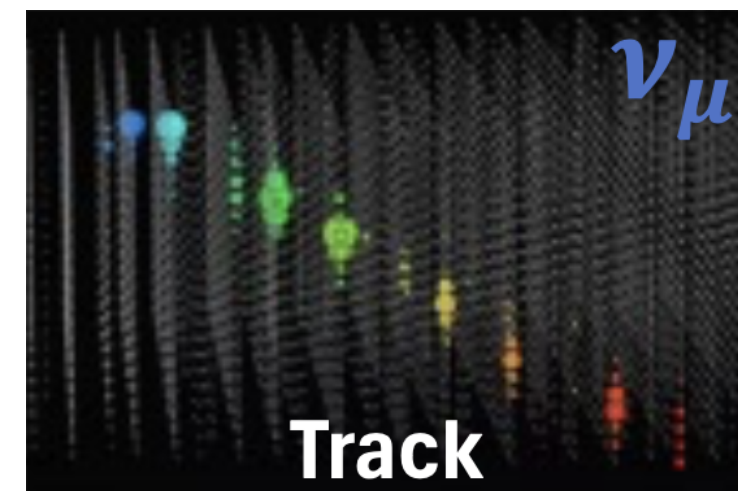
# Probing Dark Matter Annihilation in the Galactic Centre with TRIDENT



## Indirect Searches of WIMPs



## Signal & Background

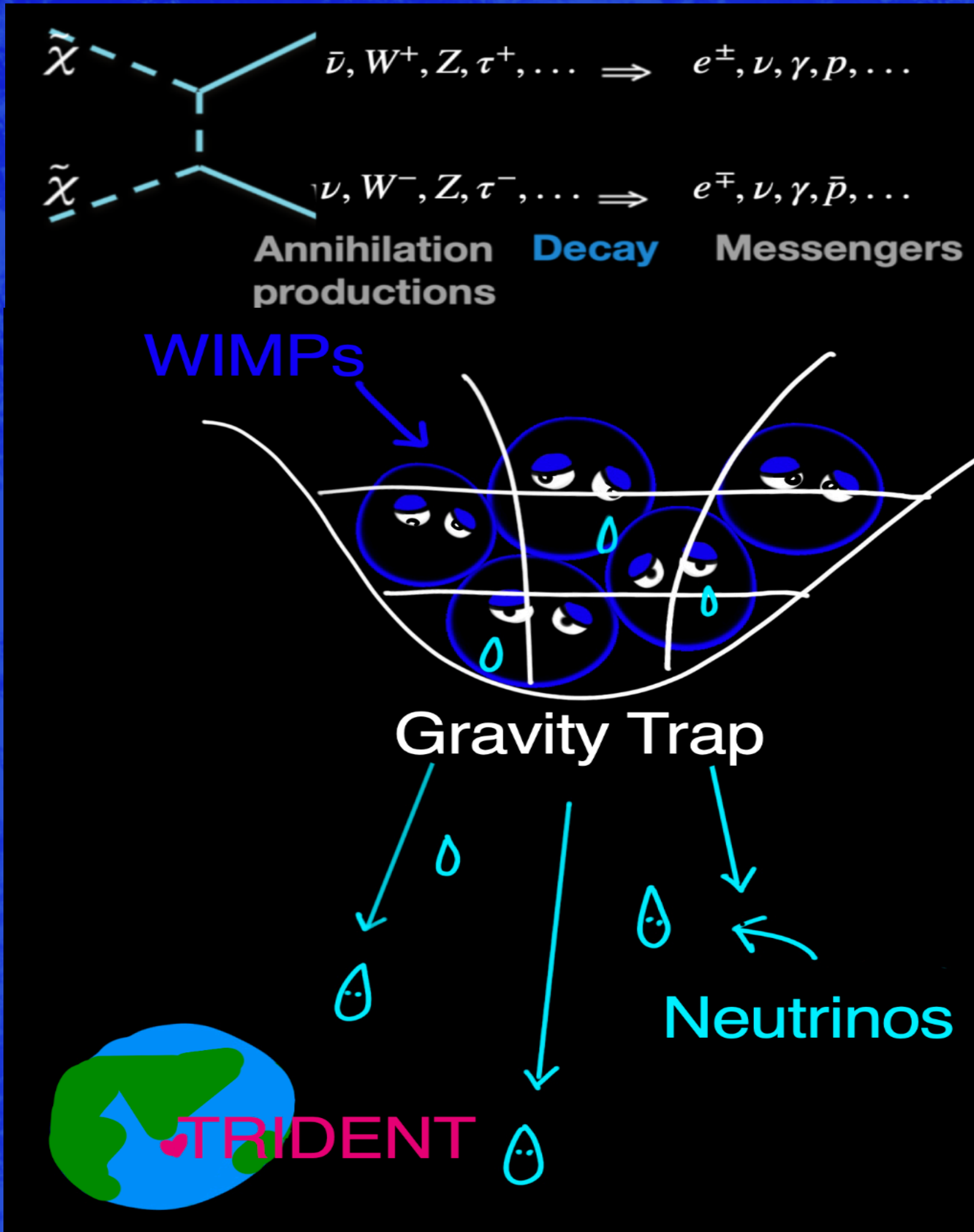




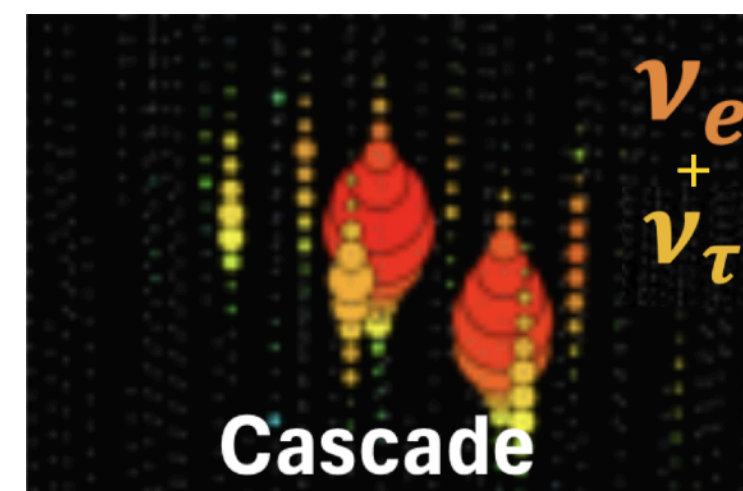
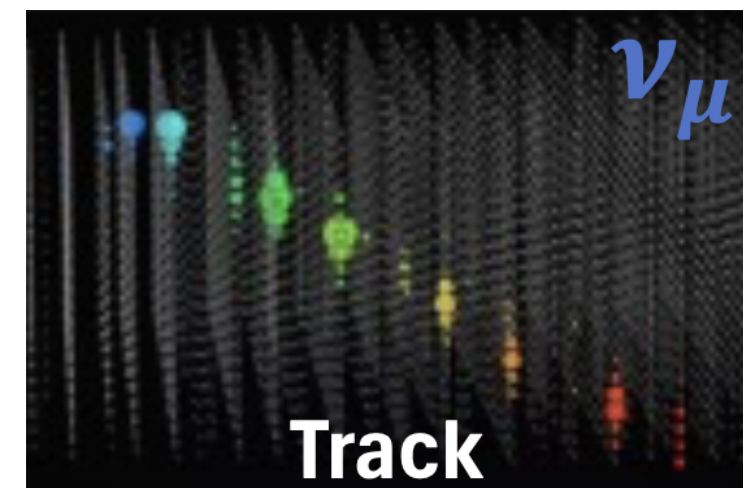
# Probing Dark Matter Annihilation in the Galactic Centre with TRIDENT



## Indirect Searches of WIMPs



## Signal & Background

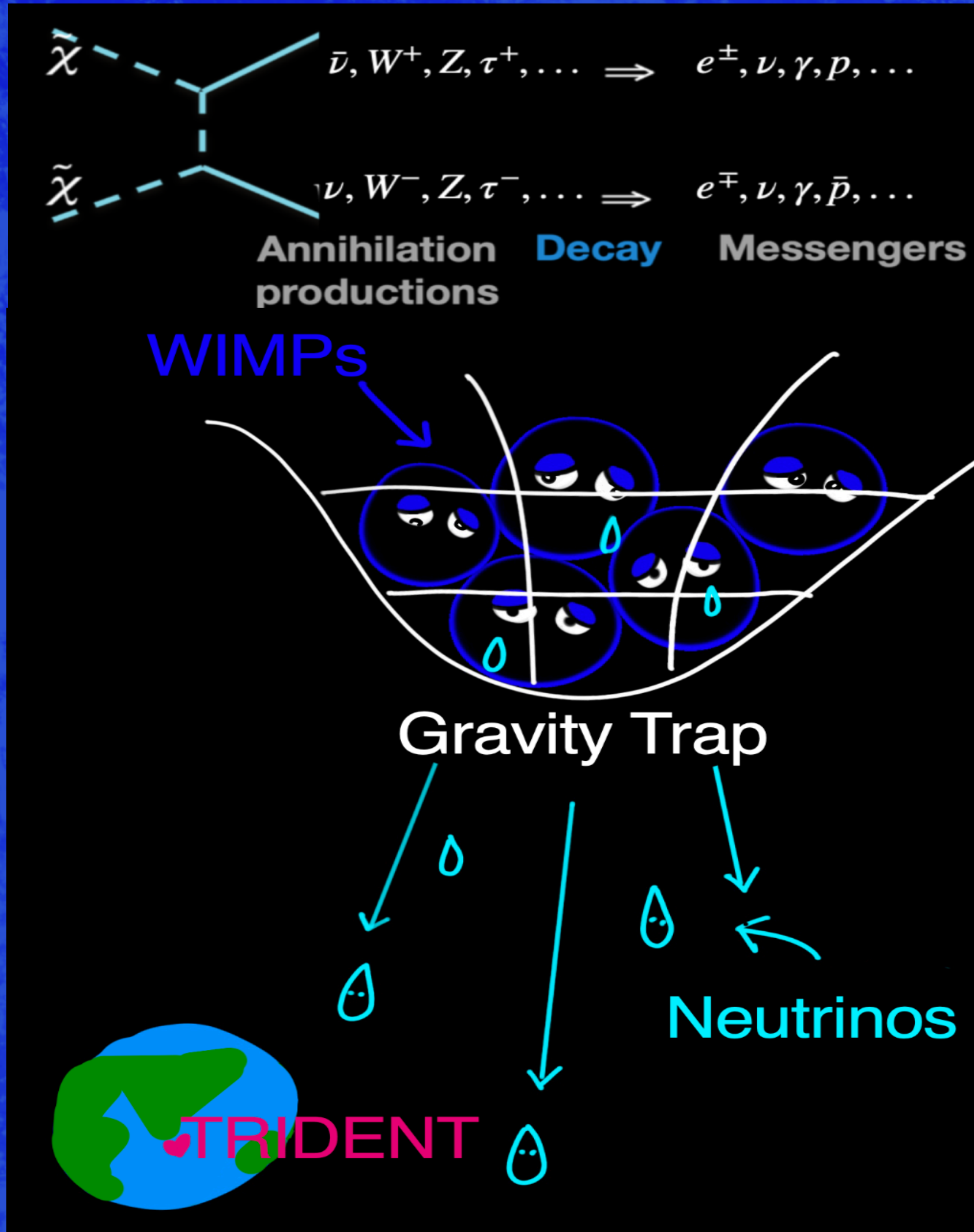




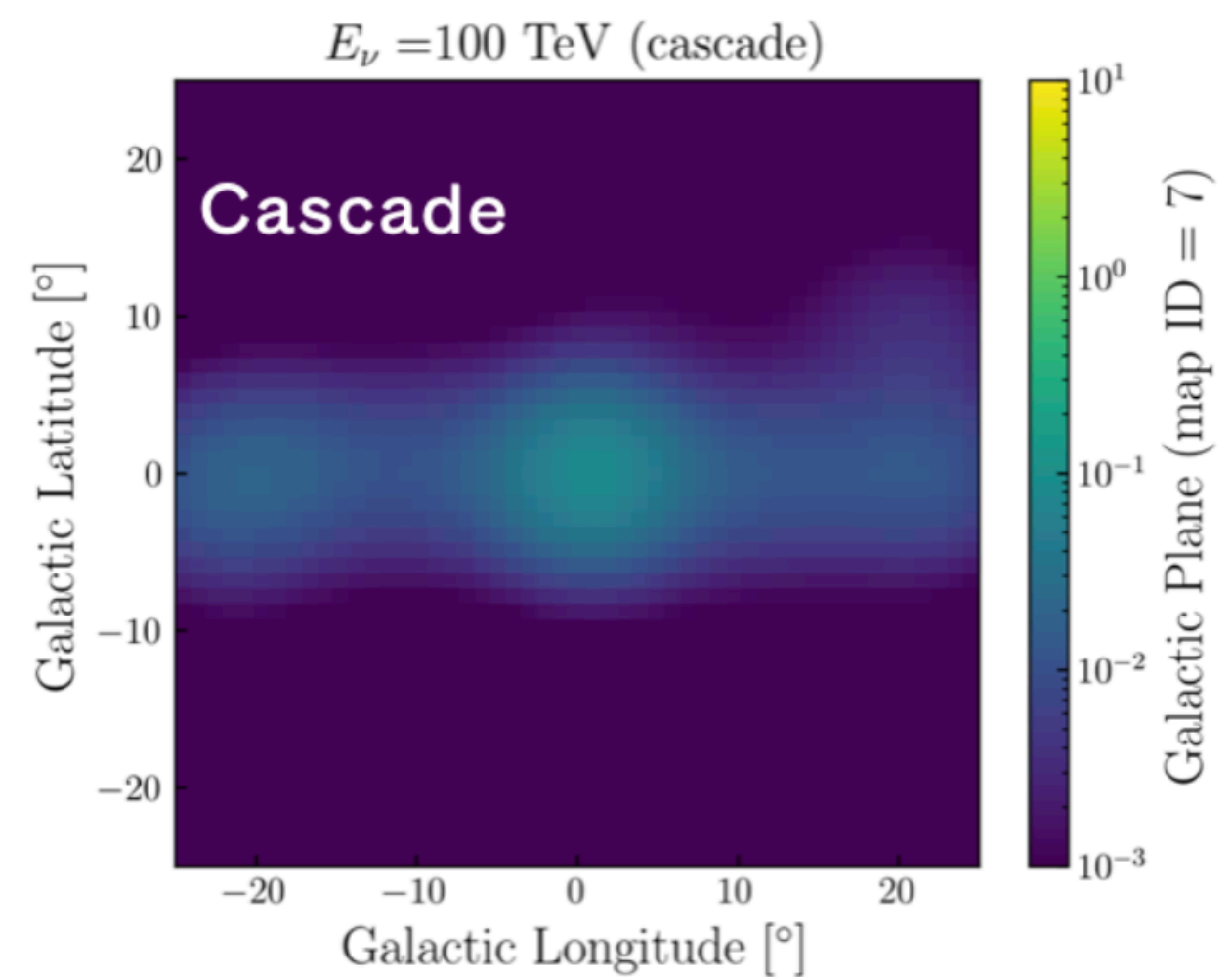
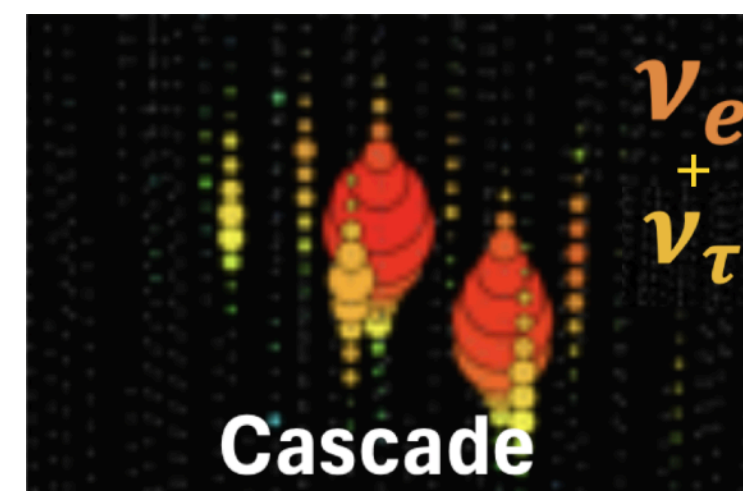
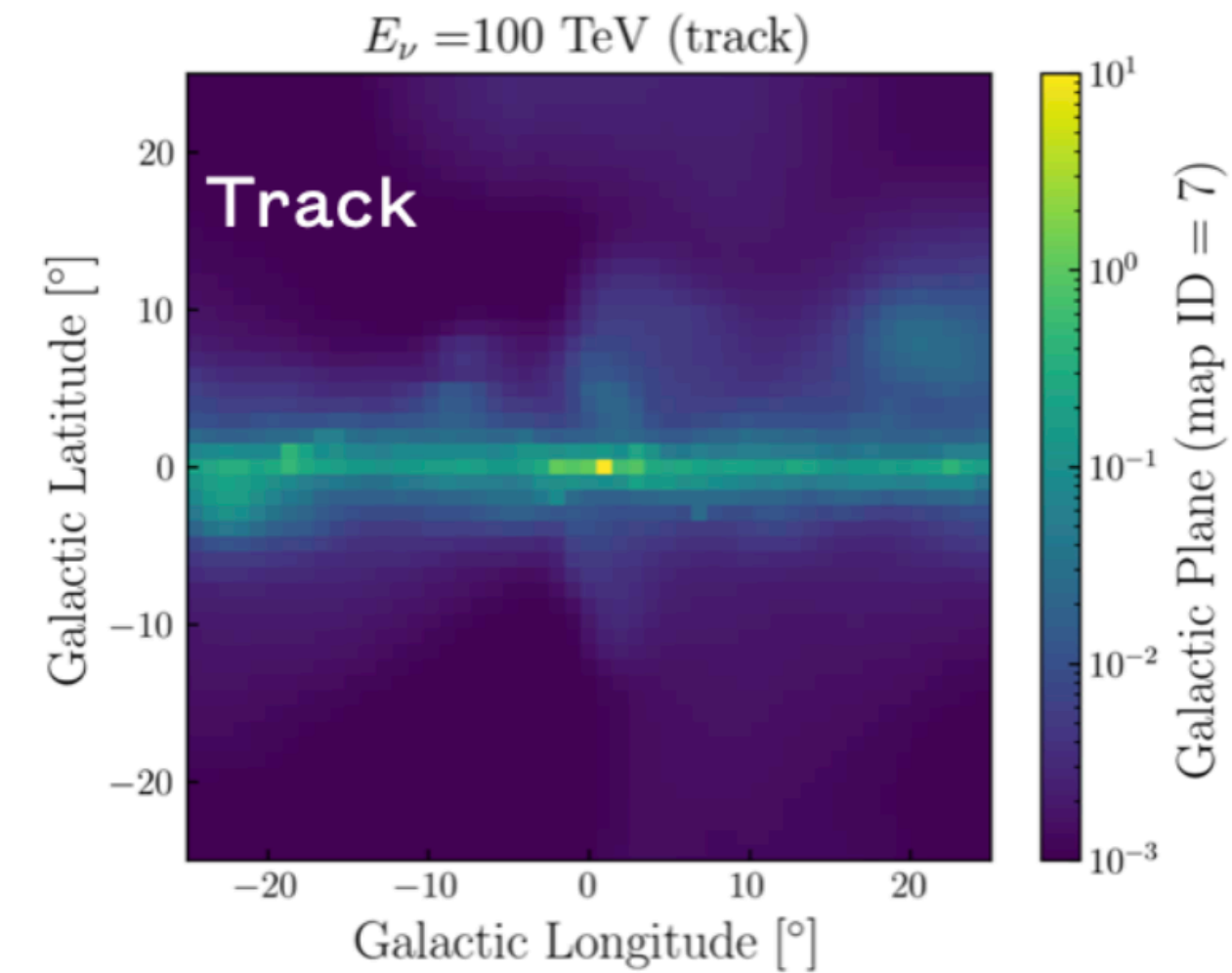
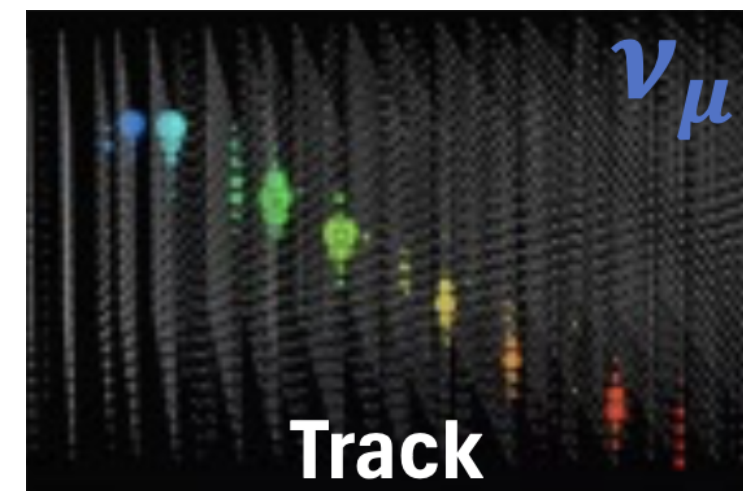
# Probing Dark Matter Annihilation in the Galactic Centre with TRIDENT



## Indirect Searches of WIMPs



## Signal & Background





# Probing Dark Matter Annihilation in the Galactic Centre with TRIDENT



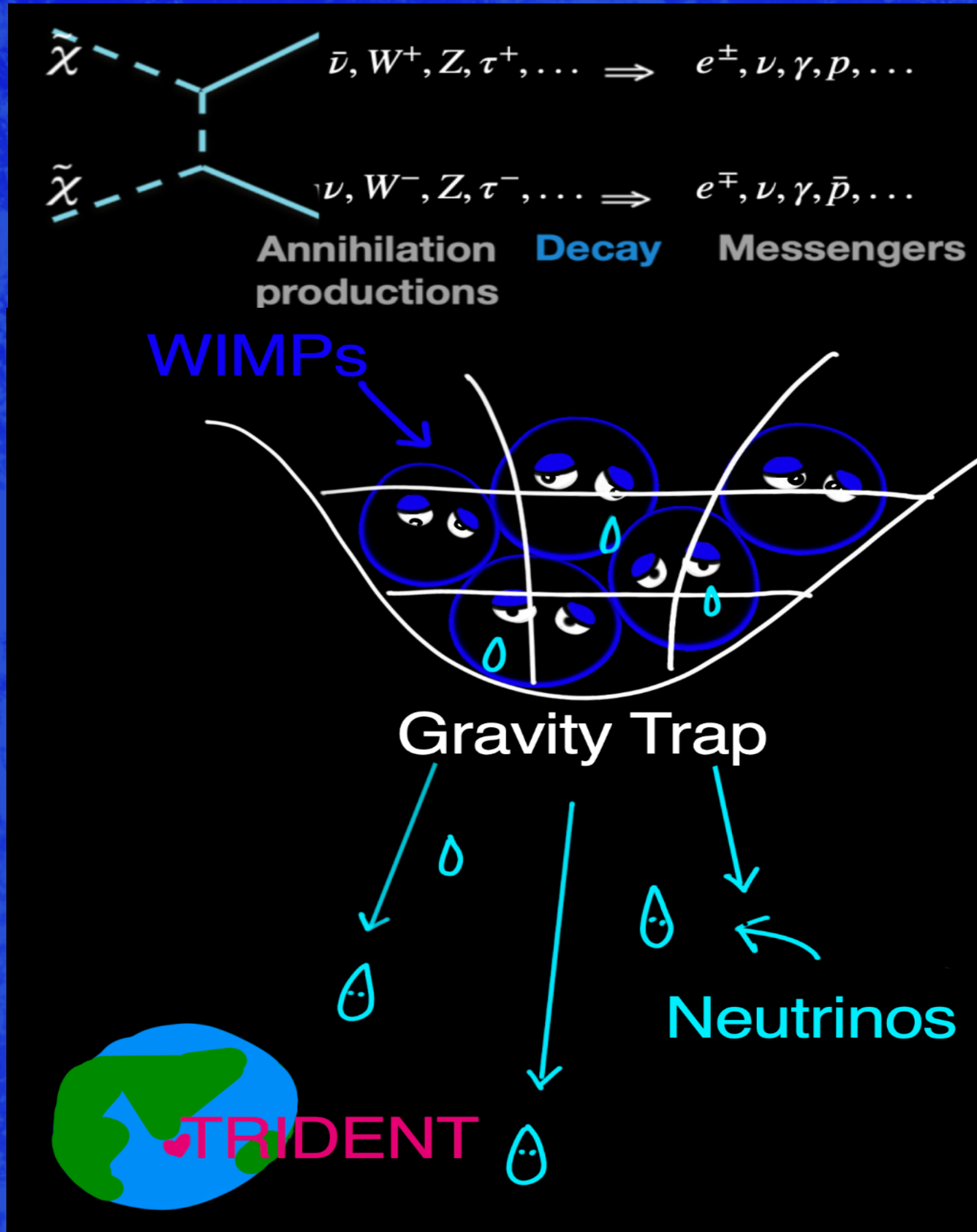
李政道研究所  
TSUNG-DAO LEE INSTITUTE



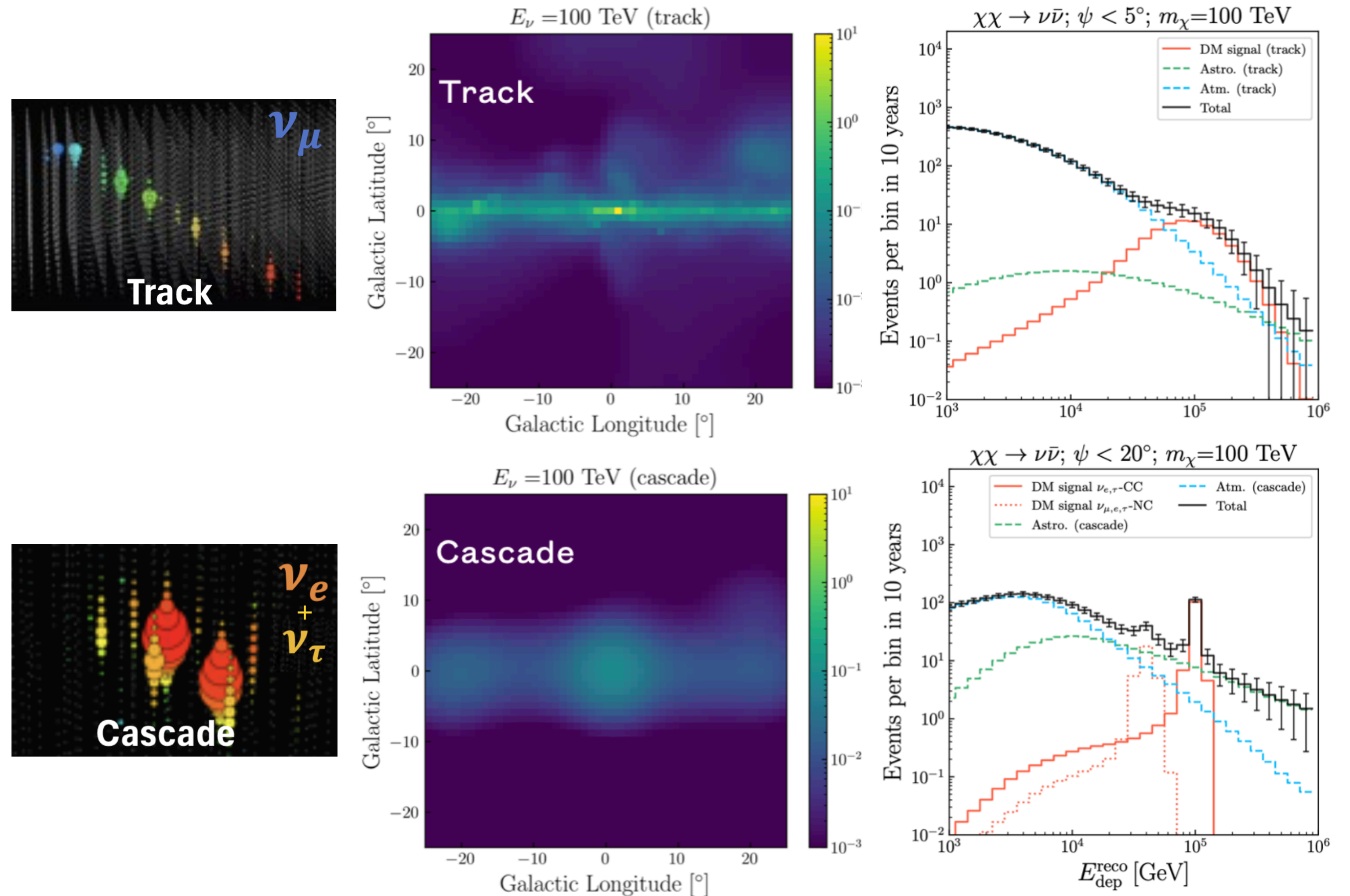
TRIDENT  
海 | 铃 | 计 | 划

Yingwei Wang, Xinhui Chu et al.

## Indirect Searches of WIMPs



## Signal & Background

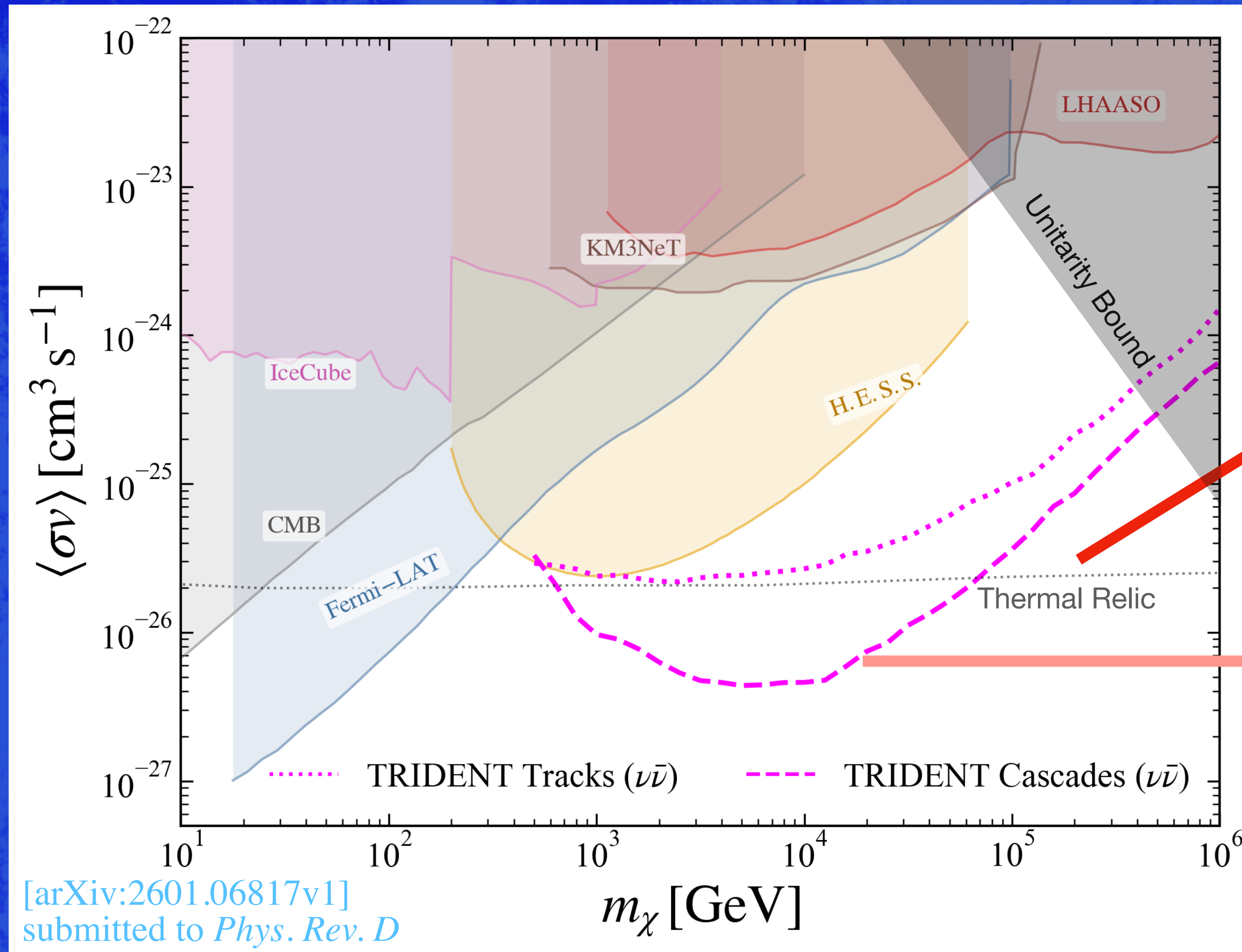




# Probing Dark Matter Annihilation in the Galactic Centre with TRIDENT



## 10-year Projected Sensitivity



[arXiv:2601.06817v1]  
submitted to *Phys. Rev. D*

### ◆ Takeaways

- TRIDENT expects to reach the thermal relic value around TeV for  $\nu\bar{\nu}$  channels, in the next decade
- The cascade events can provide a strong boost to the sensitivity