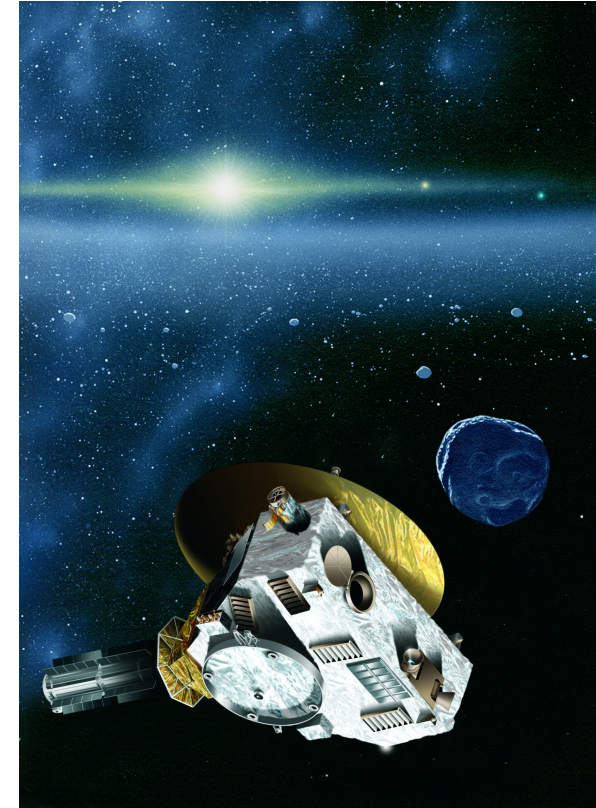


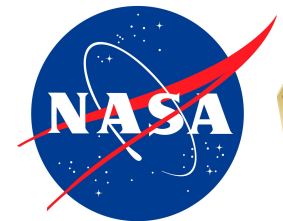
VENETIA BURNNEY STUDENT DUST COUNTER

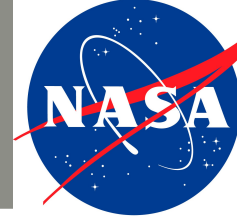
OCT, 2023 STM



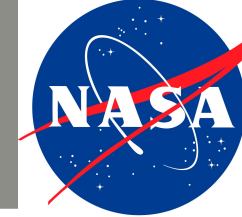
Laboratory for Atmospheric and Space Physics
University of Colorado **Boulder**

Alex Doner, Mihály Horányi

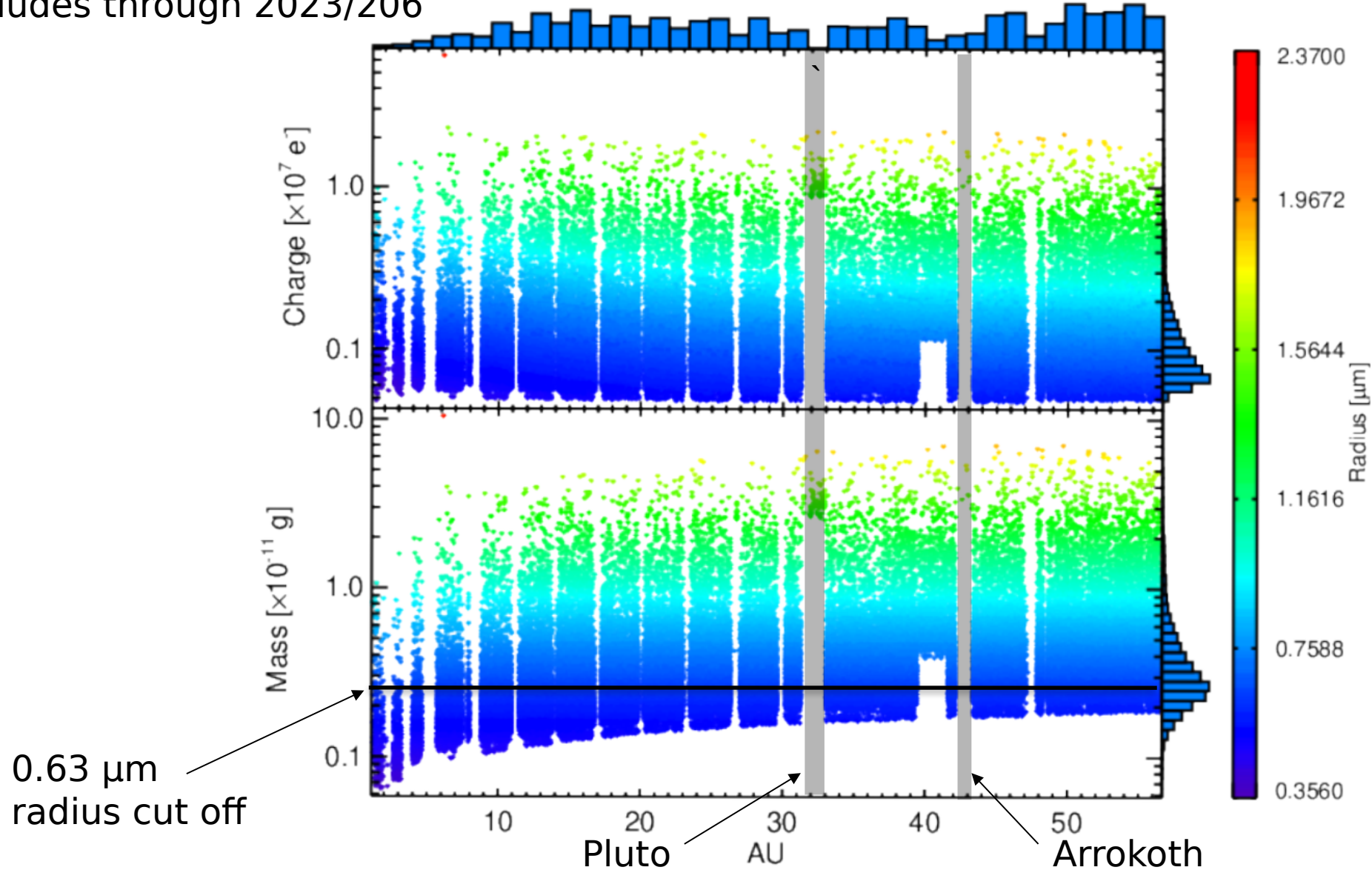


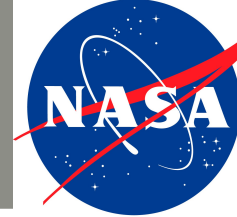


- Recap
- Data
- Discussion

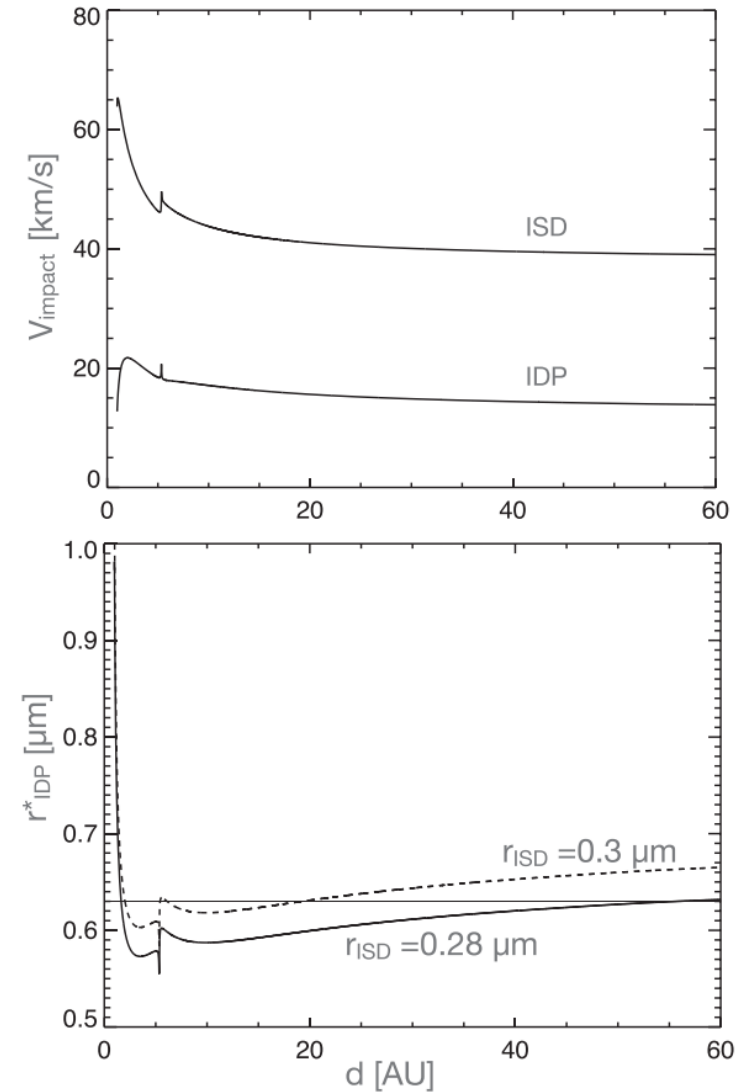
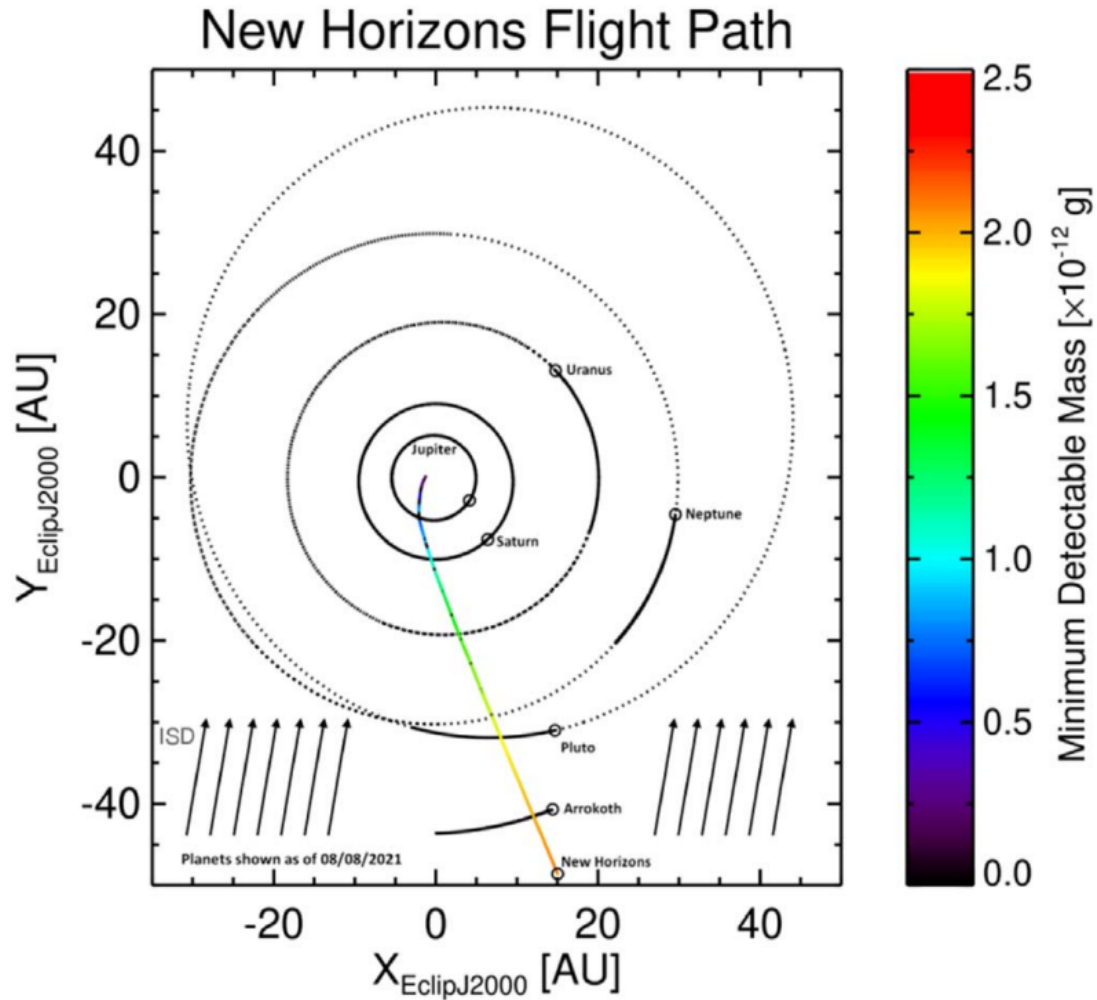


Includes through 2023/206



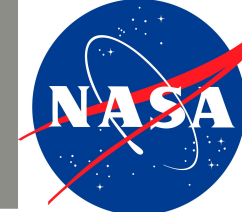


$$N_e = C \cdot m^{1.3} \cdot v^{3.0}$$



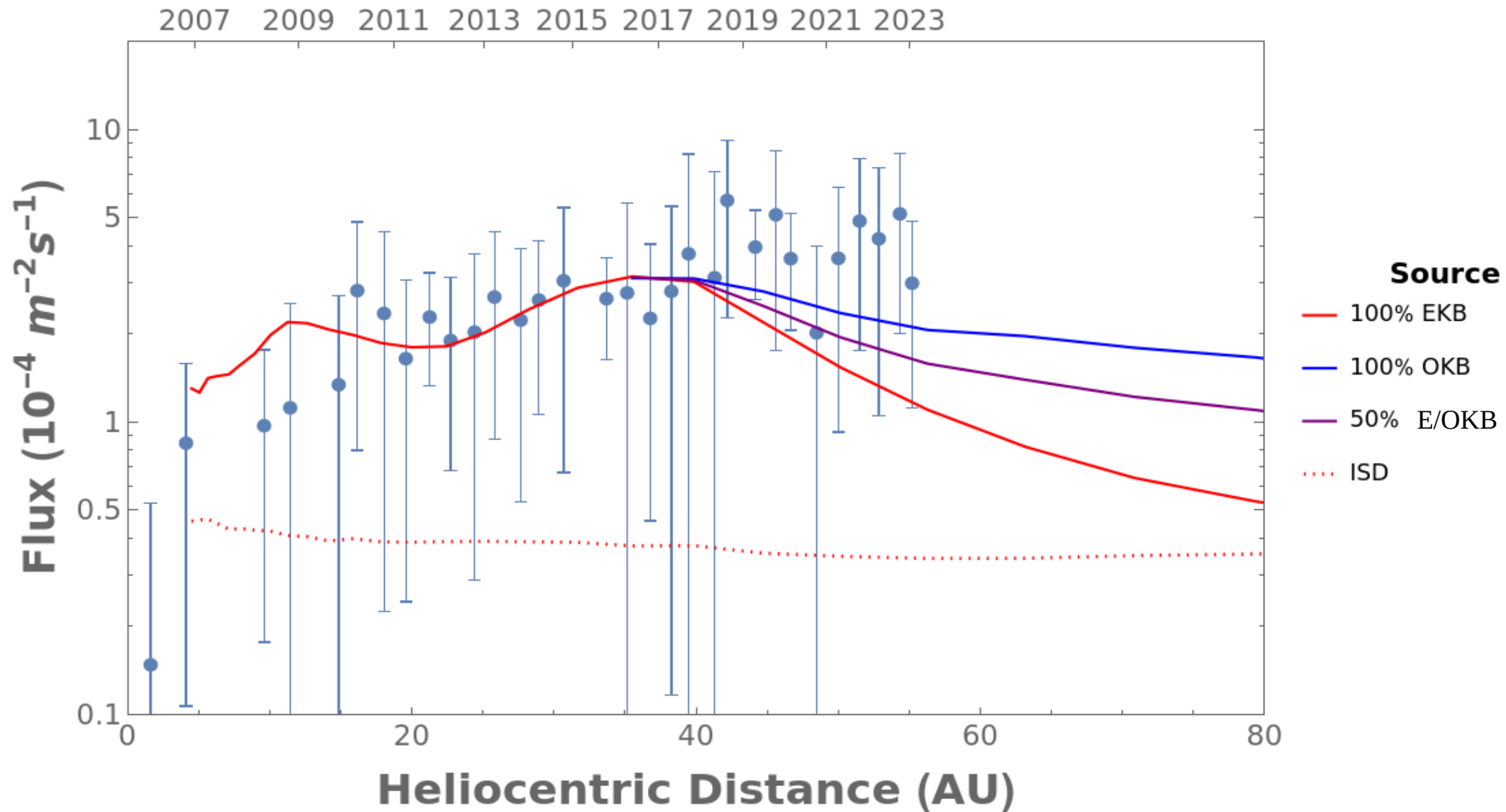


Flux Plots



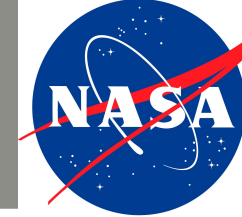
Up to 2023/050

Flux Measurements (>0.63 μm)

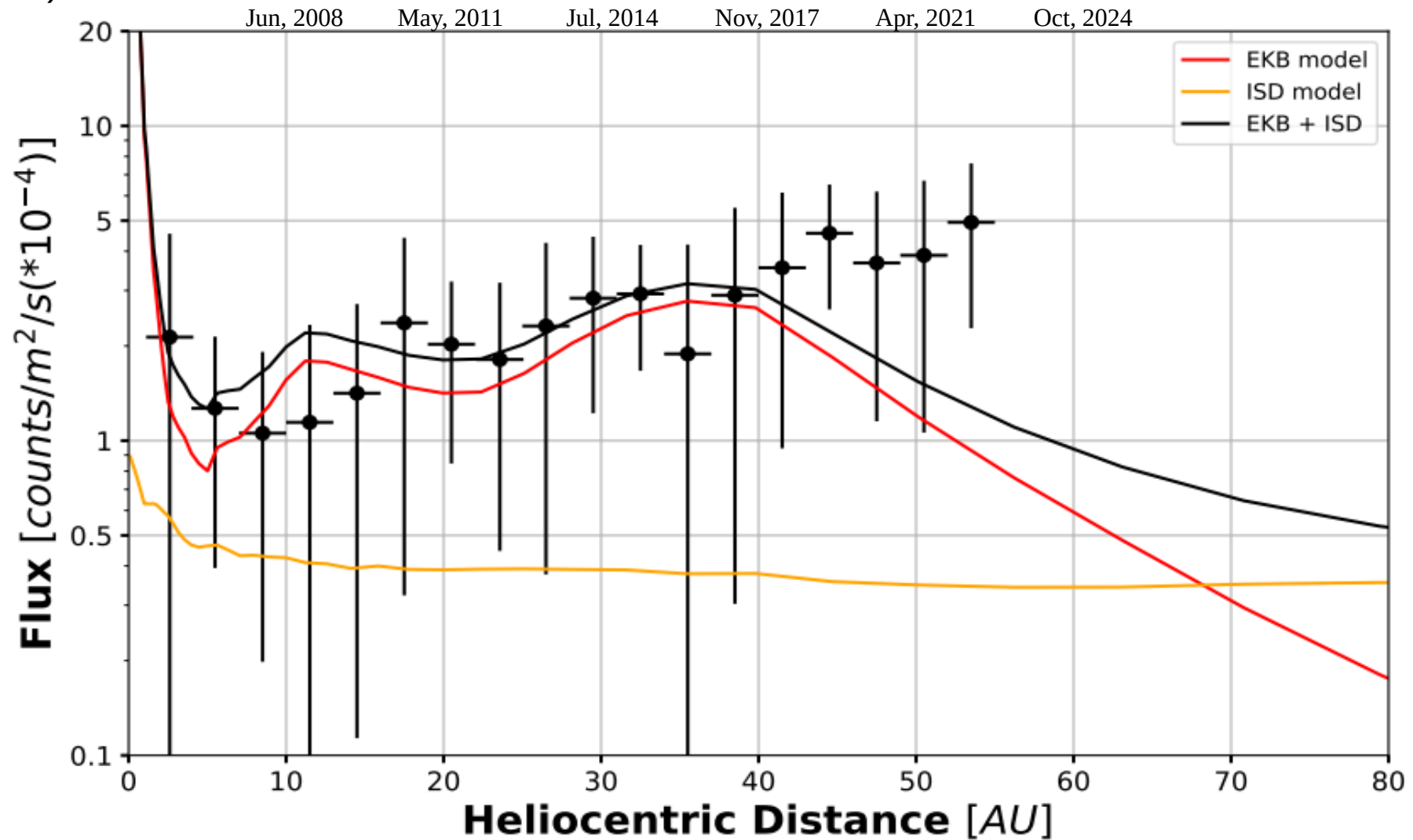




Flux Plots

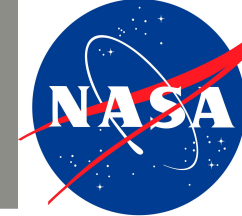


Up through 55.0 AU, 3 AU Bins
(~Jan 2023)

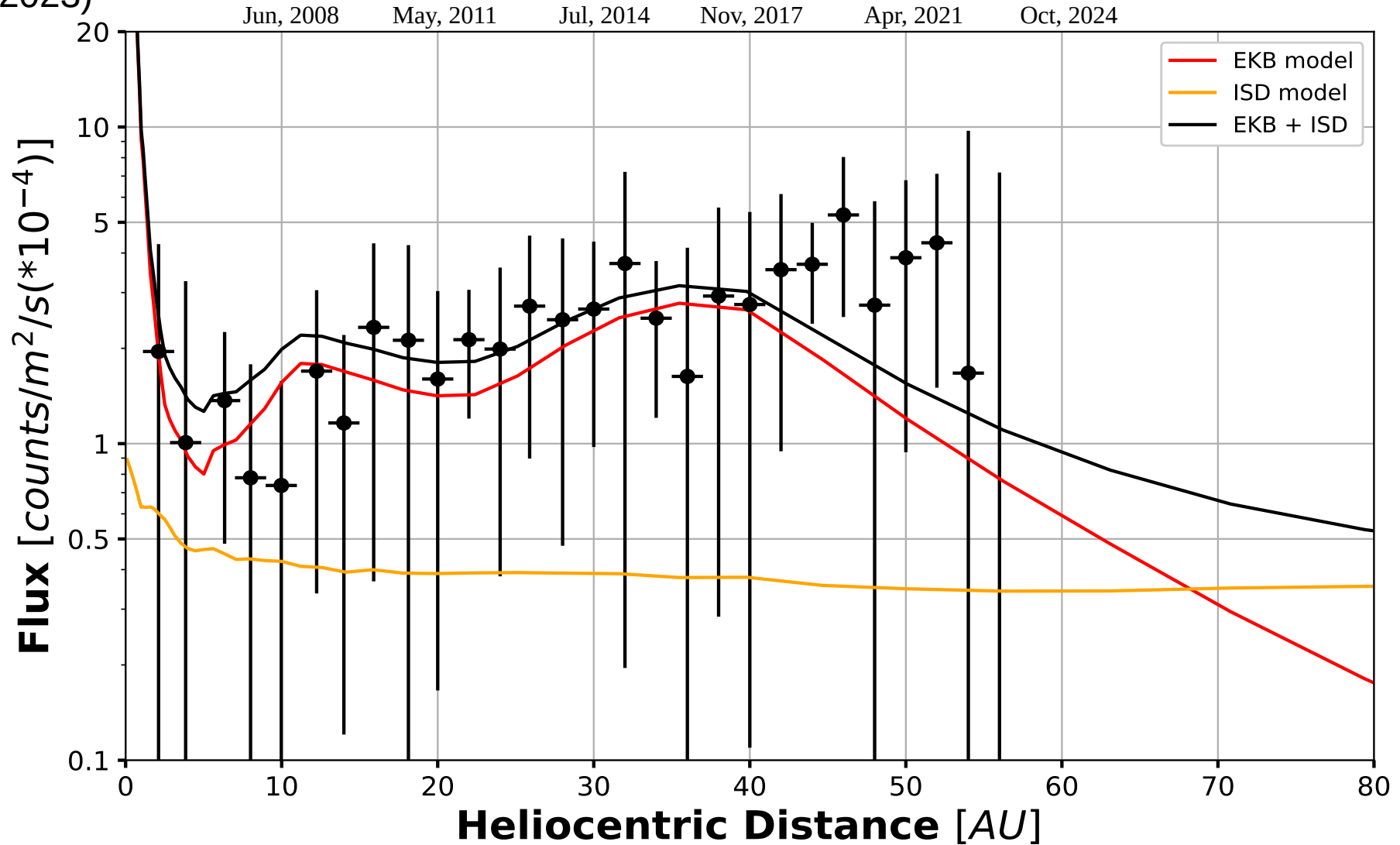


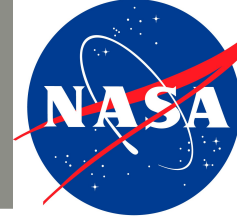


Flux Smaller AU Bin



Up through 56.0 AU, 2 AU Bins
(~ May, 2023)



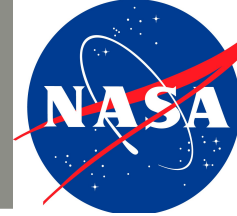


3 Primary Discussions:

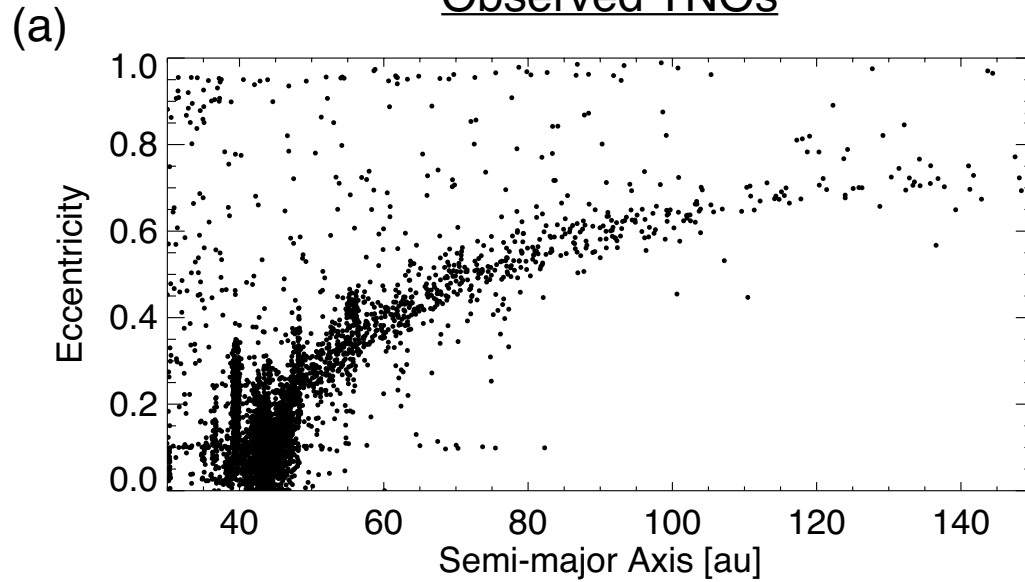
- Outer/Extended Kuiper Belt
- Radiation Pressure Effects
- Composition Effects



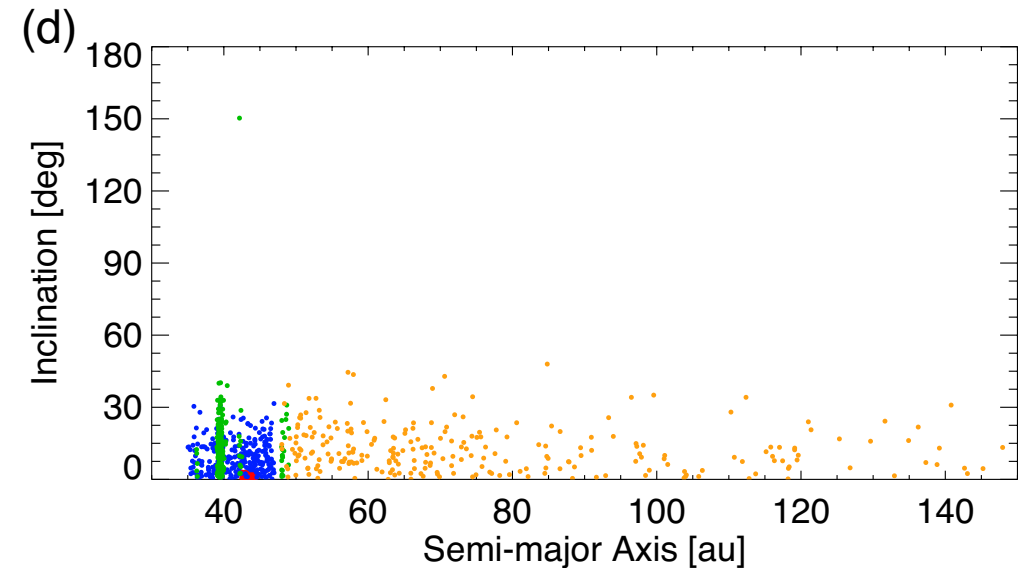
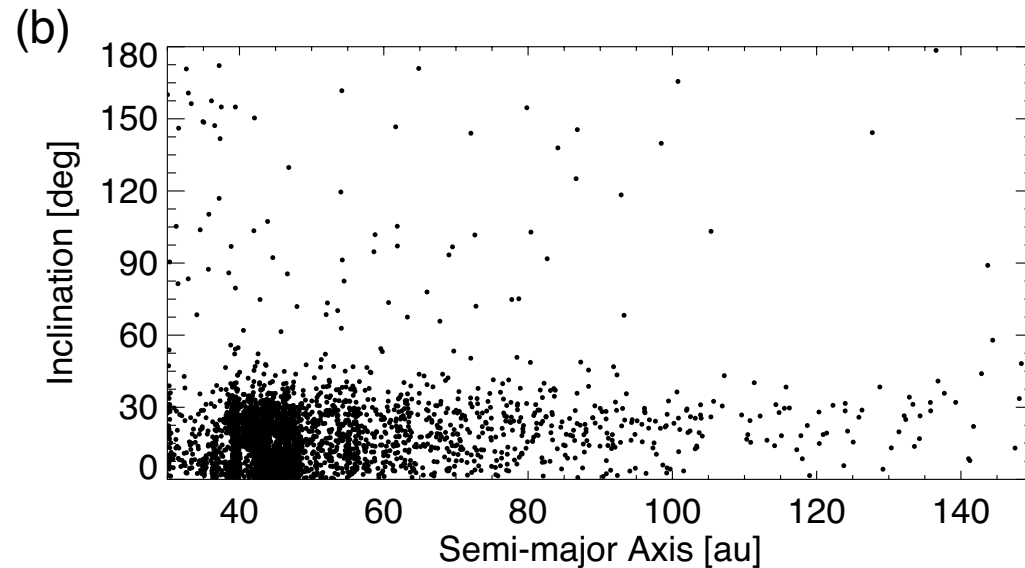
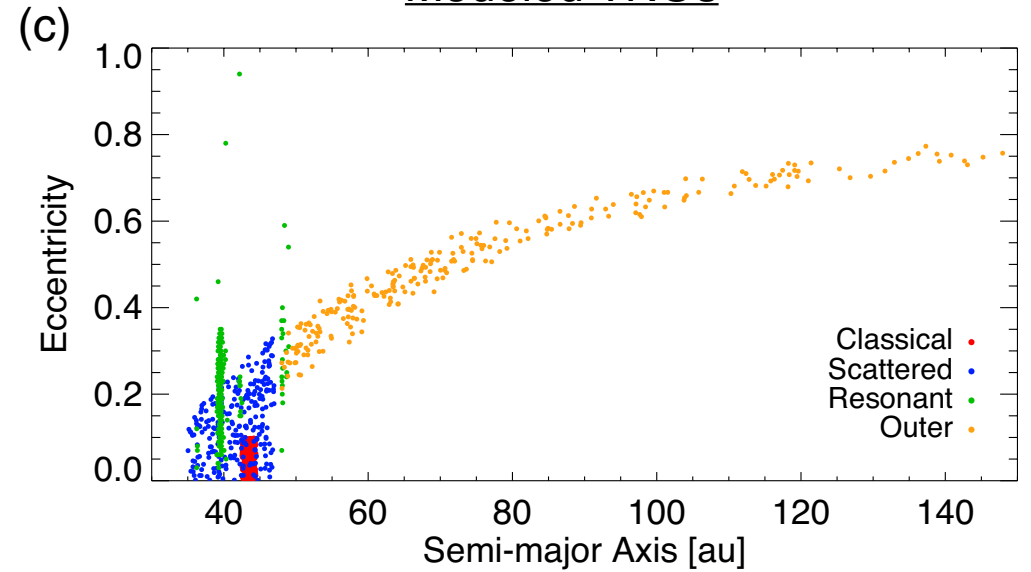
Parent Body Dist.



Observed TNOs

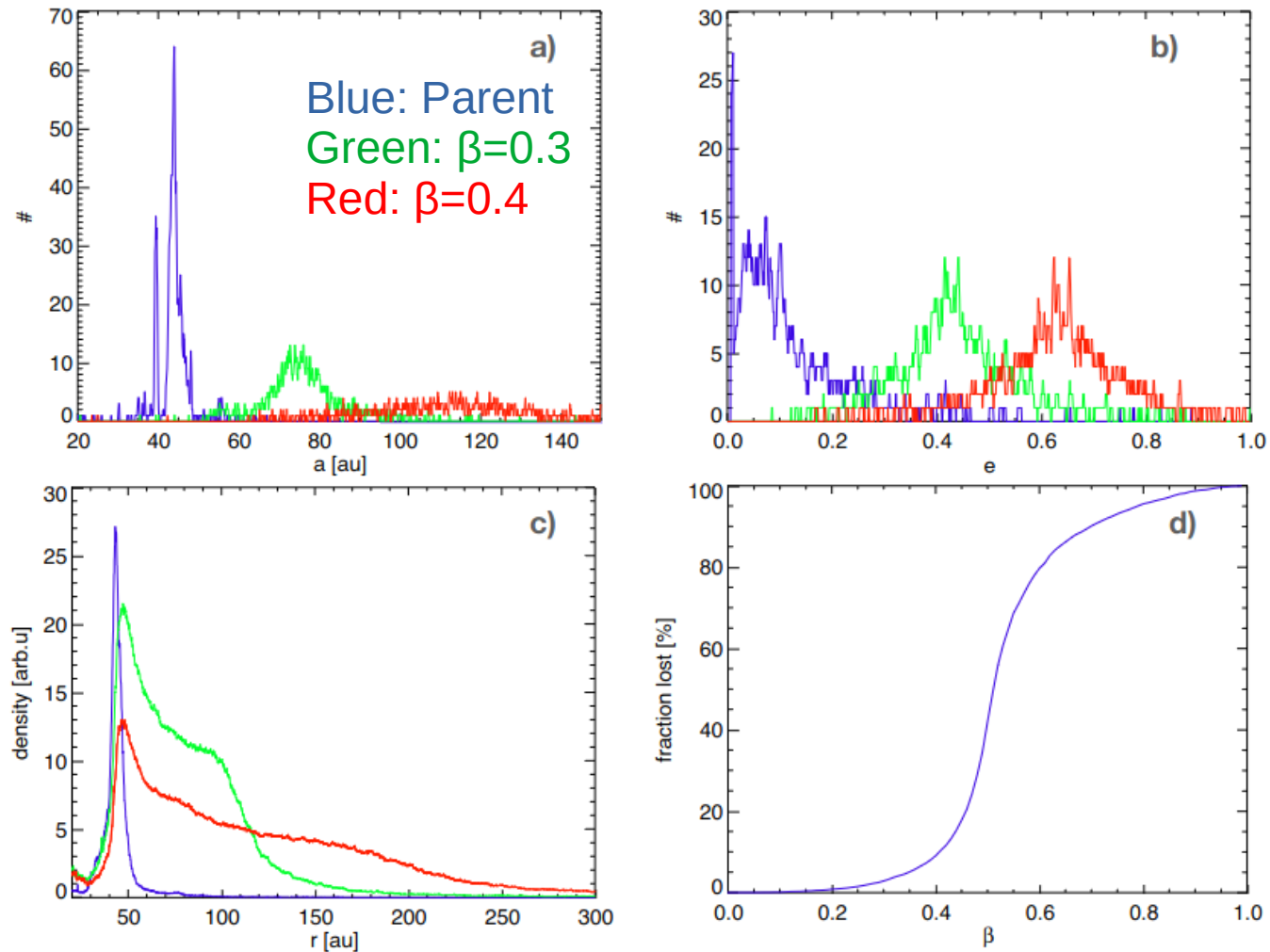
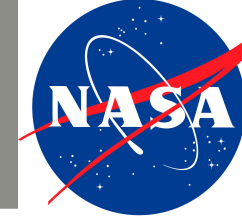


Modeled TNOs



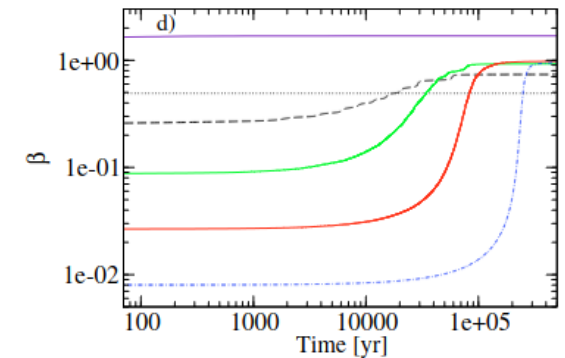
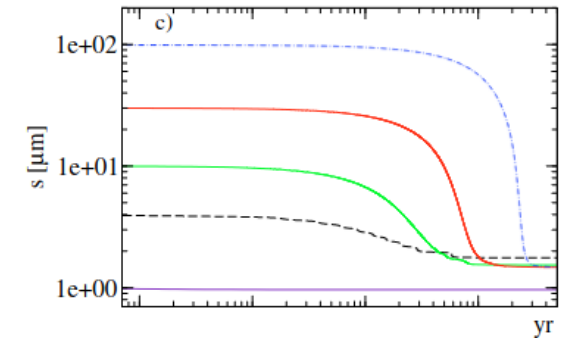
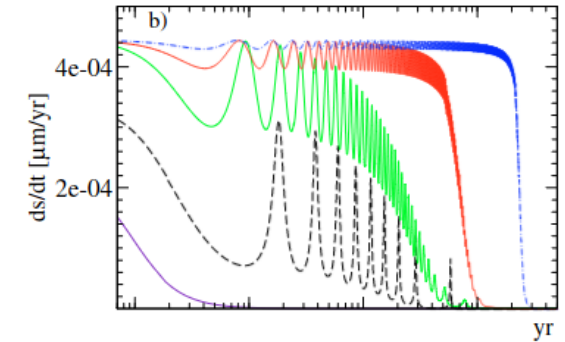
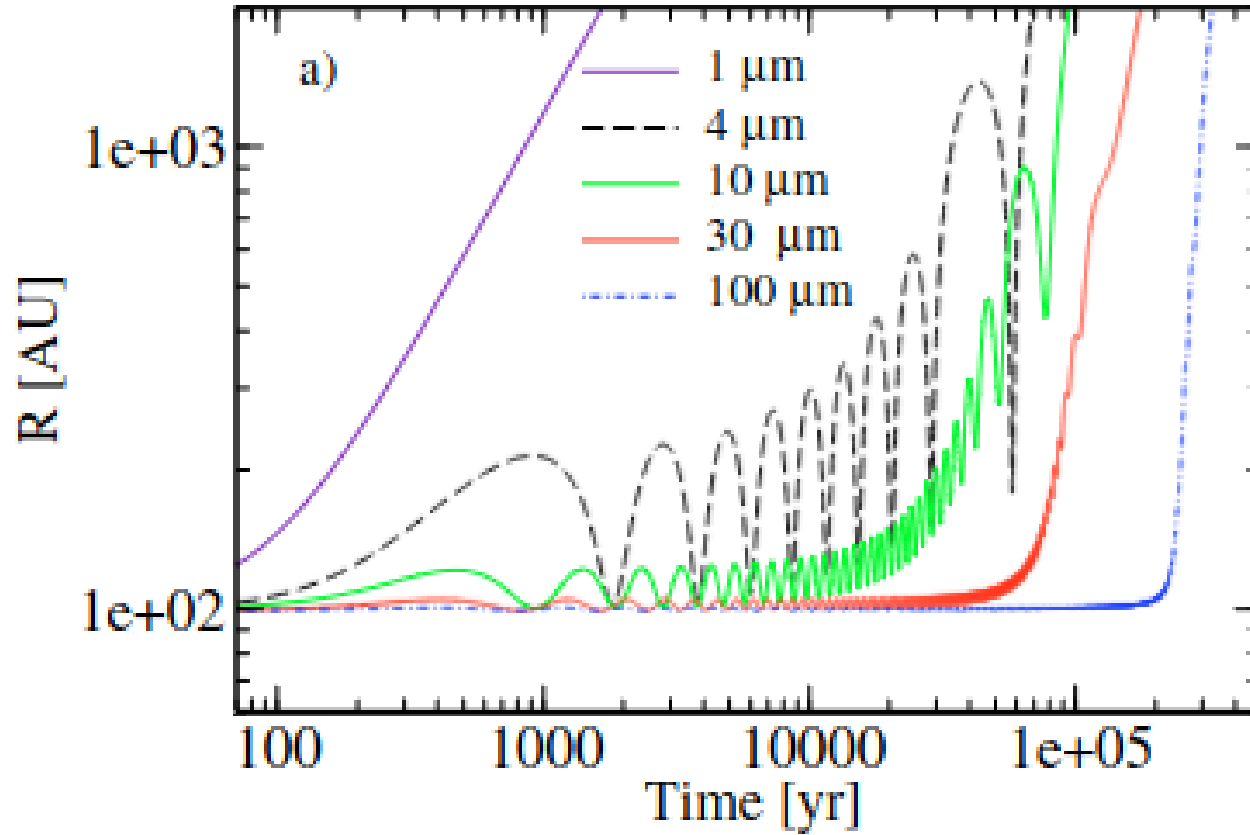
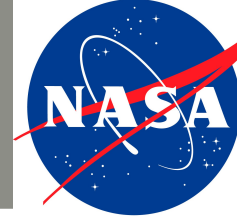


Rad. Pressure

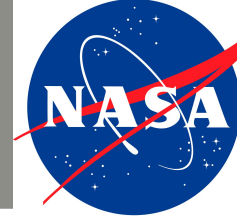




Composition (H₂O)



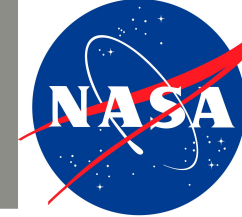
A. Grigorieva et al.: Survival of icy grains in debris discs (2007)



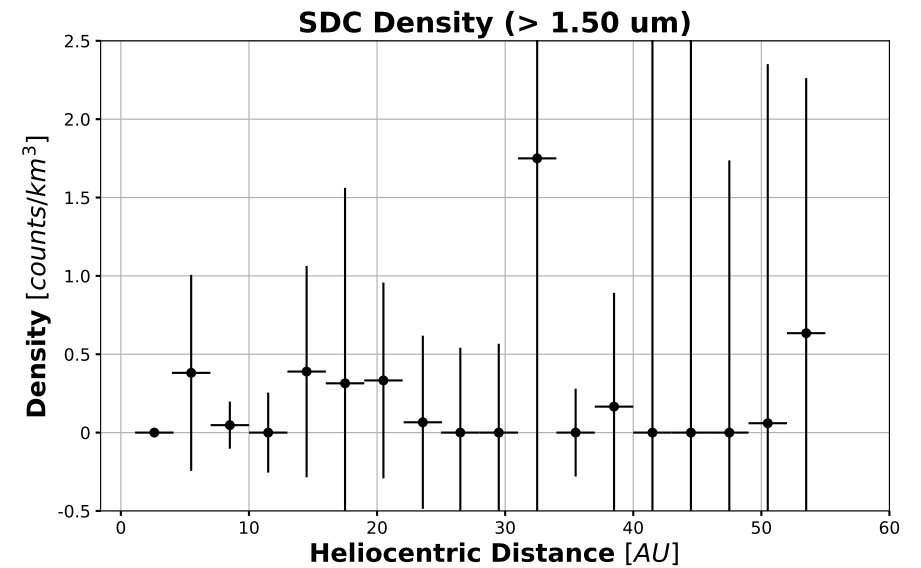
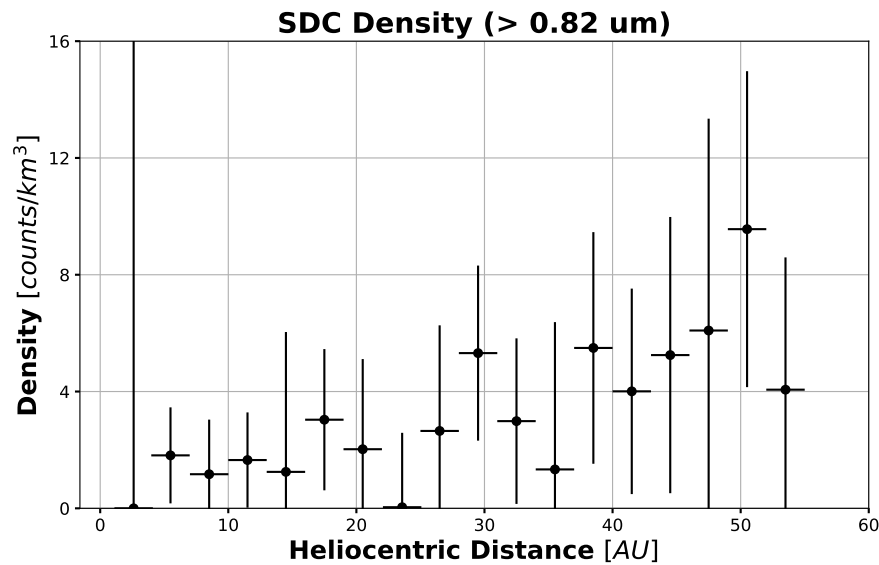
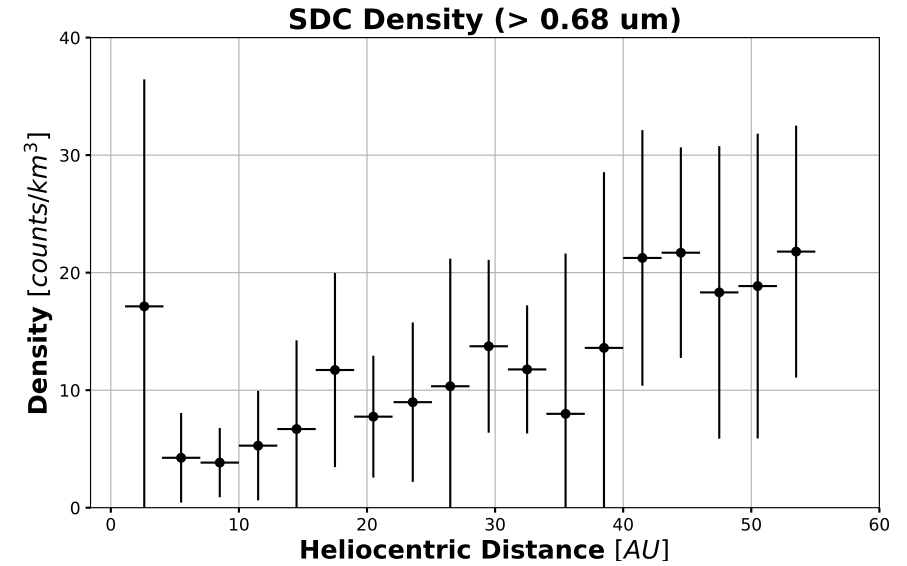
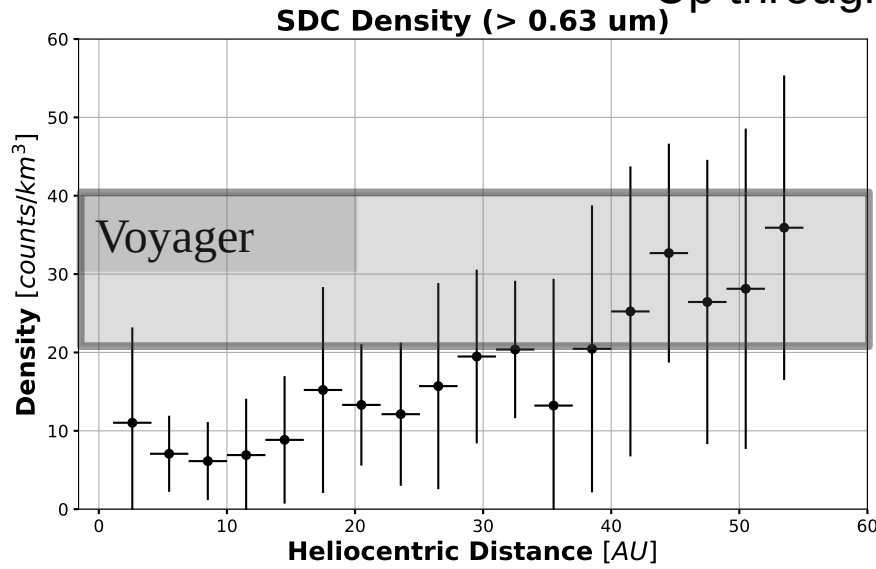
Extra Slides



Density Plots

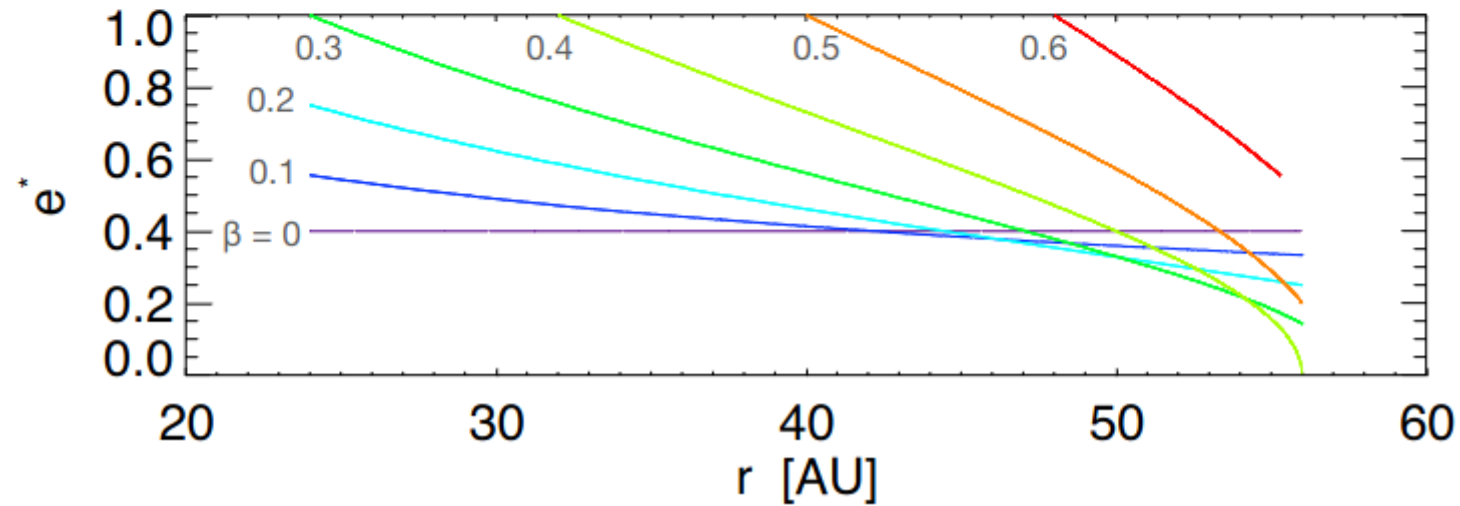
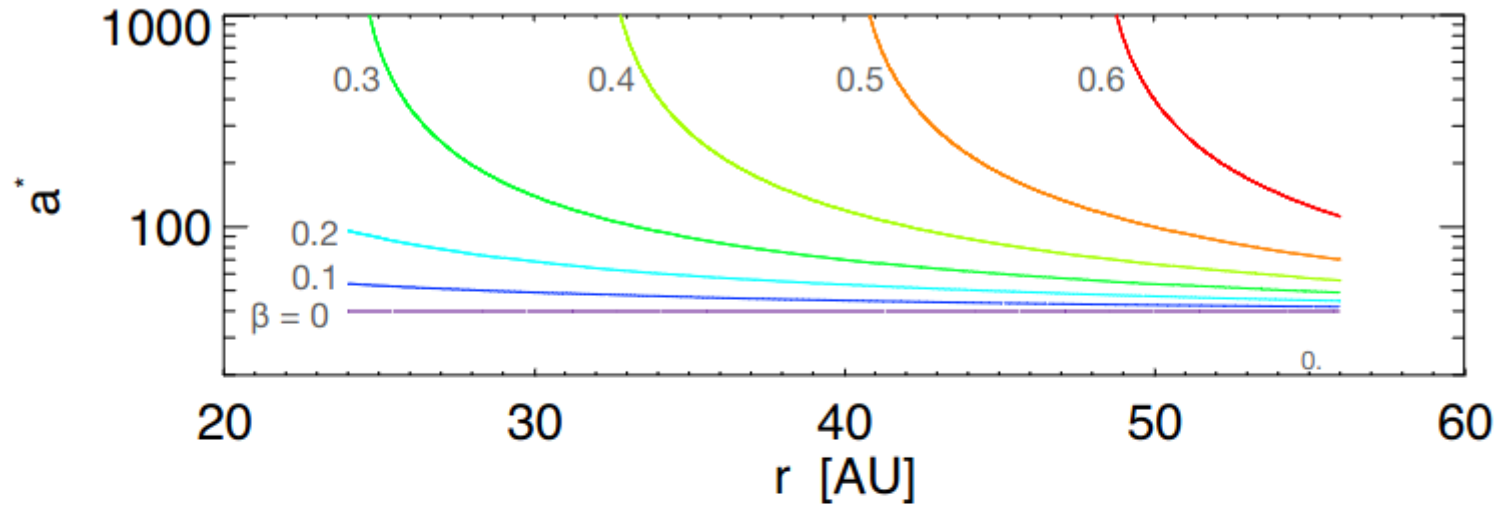
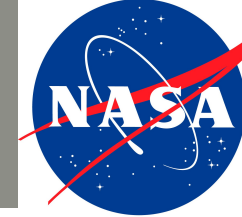


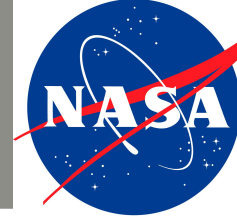
Up through 55.0 AU, 3 AU Bins





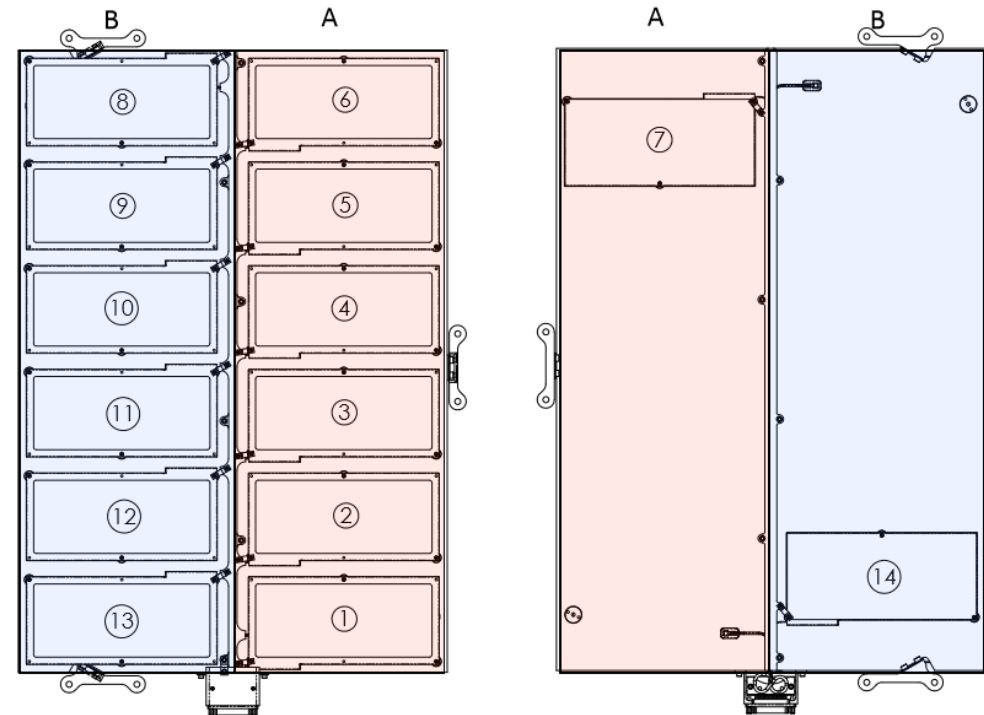
Particle Release





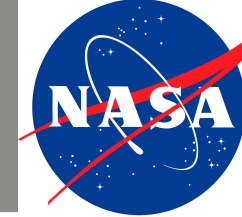
- 2 Channels (A & B)
- 6 Science Detectors
- 1 Reference Detector

Channel Layout





Data to date: Flux Plots



Up to 2023/050

Flux Measurements (>0.68 μm)

