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The Effect of Stellar Evolution on Sunburns

Liam Becker

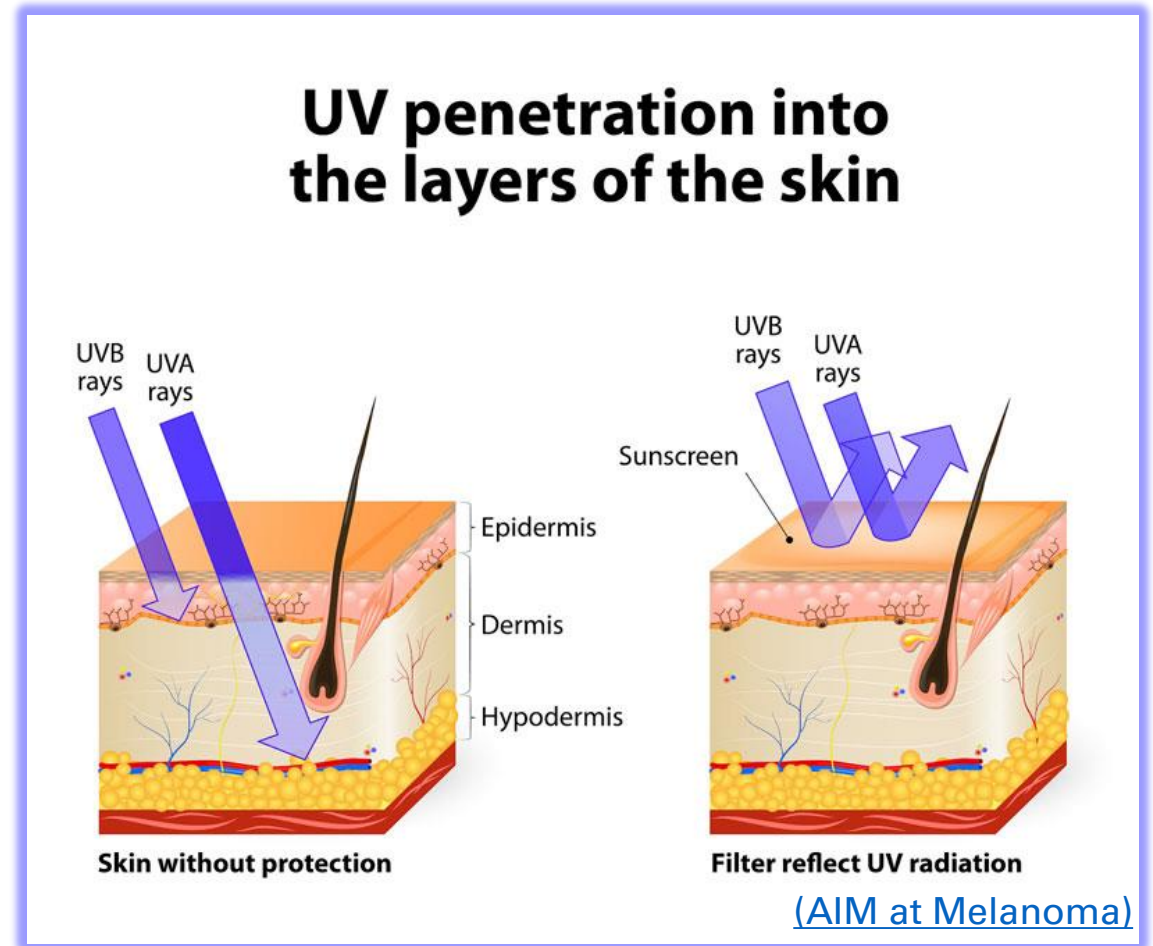
UV Radiation

UVA:

- 315 – 400 nm
- Can get through atmosphere much easier
- Deeper skin damage

UVB:

- 280 – 315 nm
- Mostly stopped by atmosphere
- Shallow skin damage



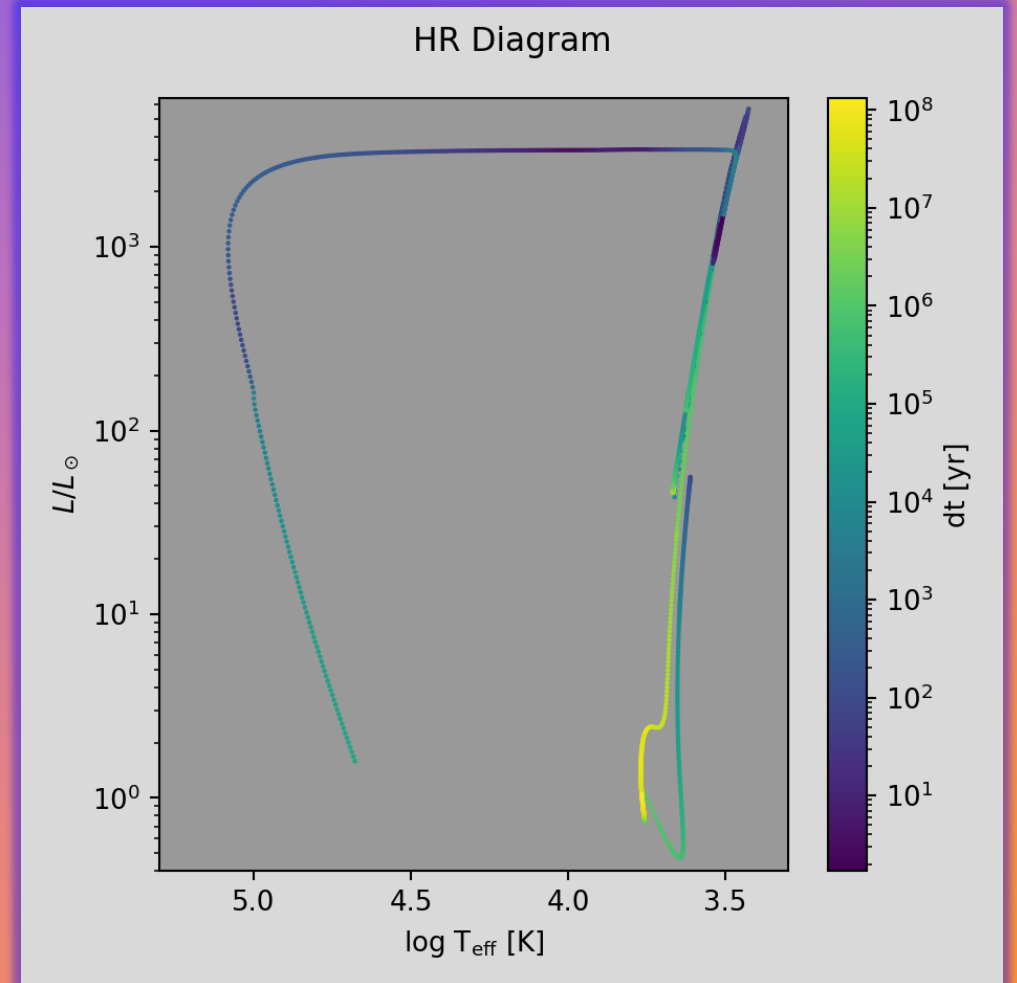
The Model

MIST

- MESA Isochrones and Stellar Tracks ([Dotter, A.](#))
- Modules for Experiments in Stellar Astrophysics ([MESA](#))
- Creates [stellar evolution tracks](#)

Simulated observation

- Strömgren u-band
 - Centered at [350 nm](#)
 - Half-width of [30 nm](#)

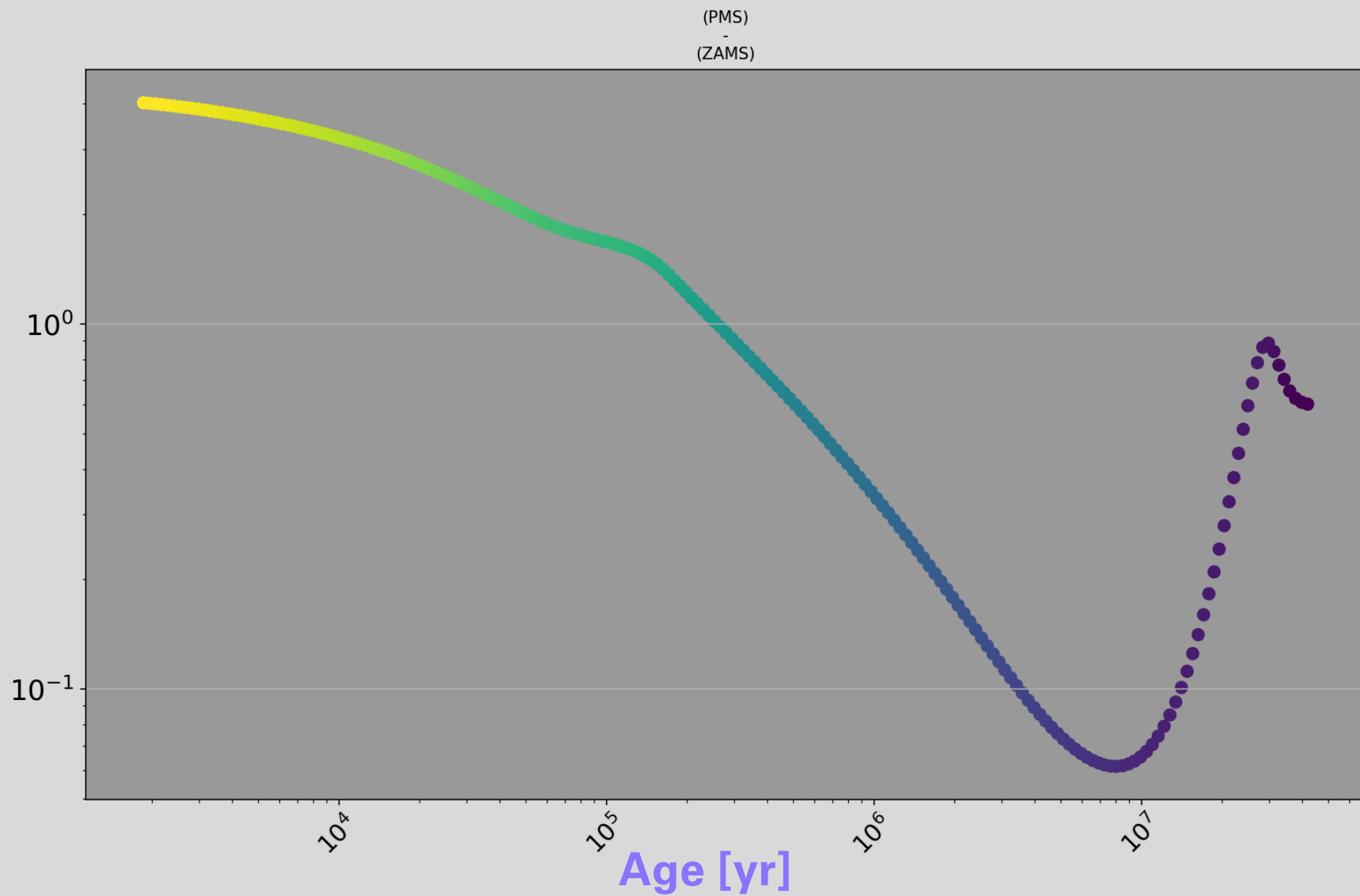




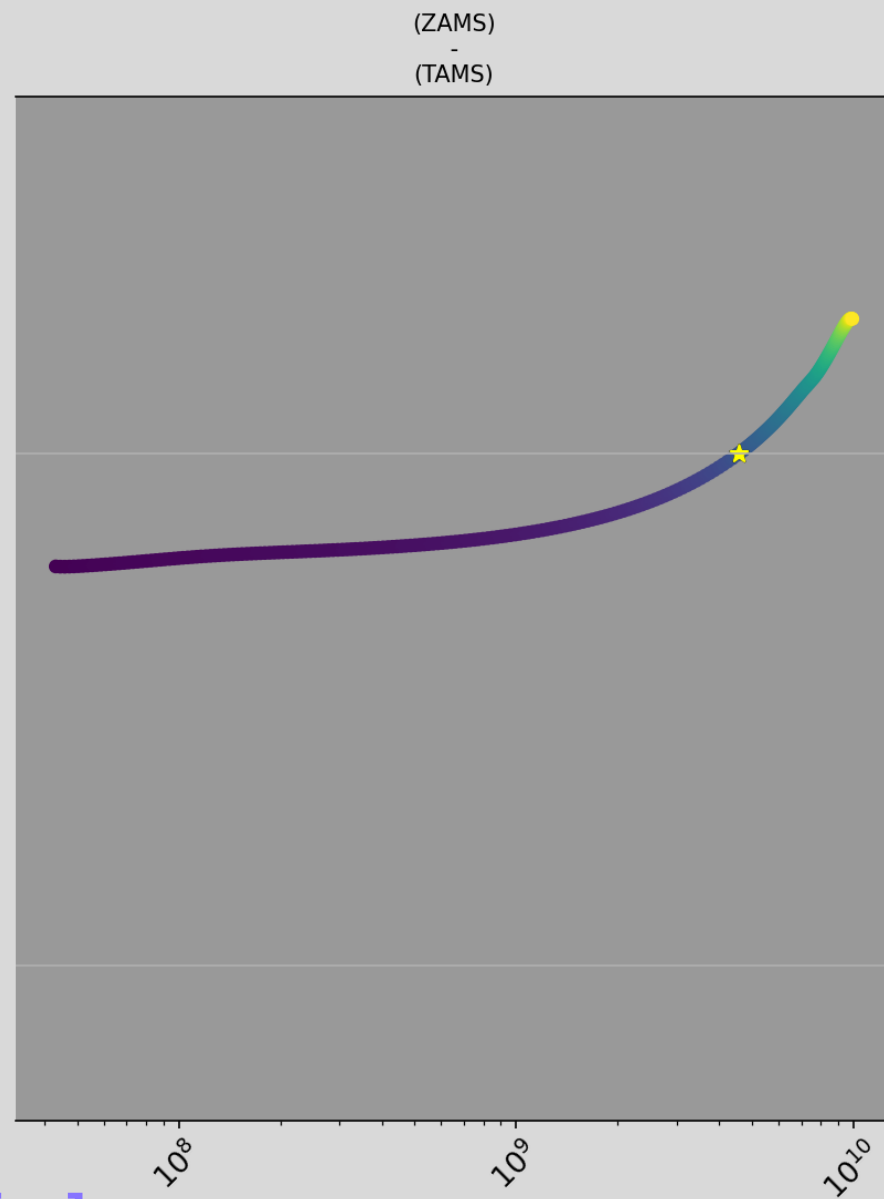
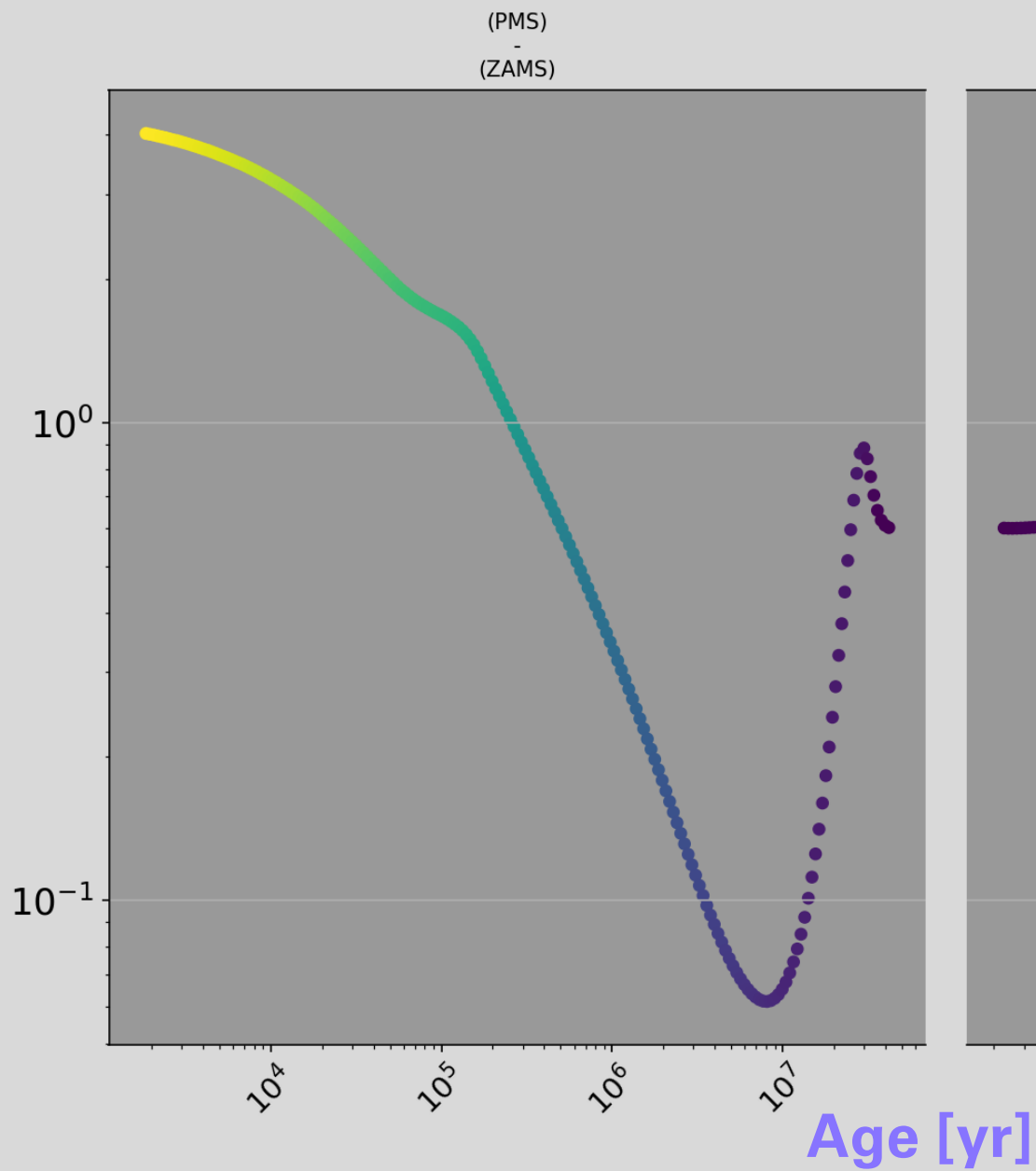
The Effect of Stellar Evolution on the UVA Flux Received by the Surface of the Earth

Liam Becker

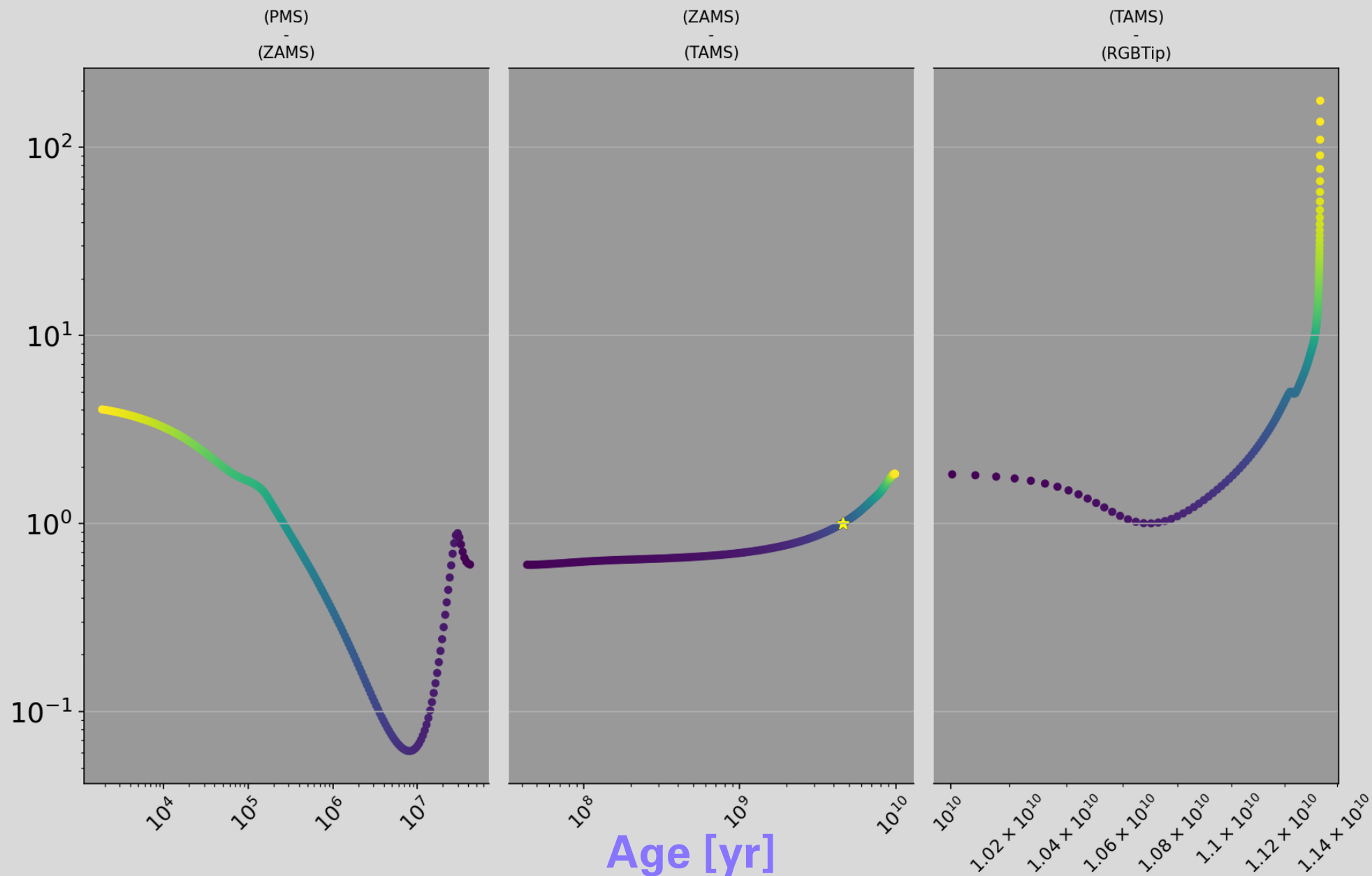
Normalized UVA Flux



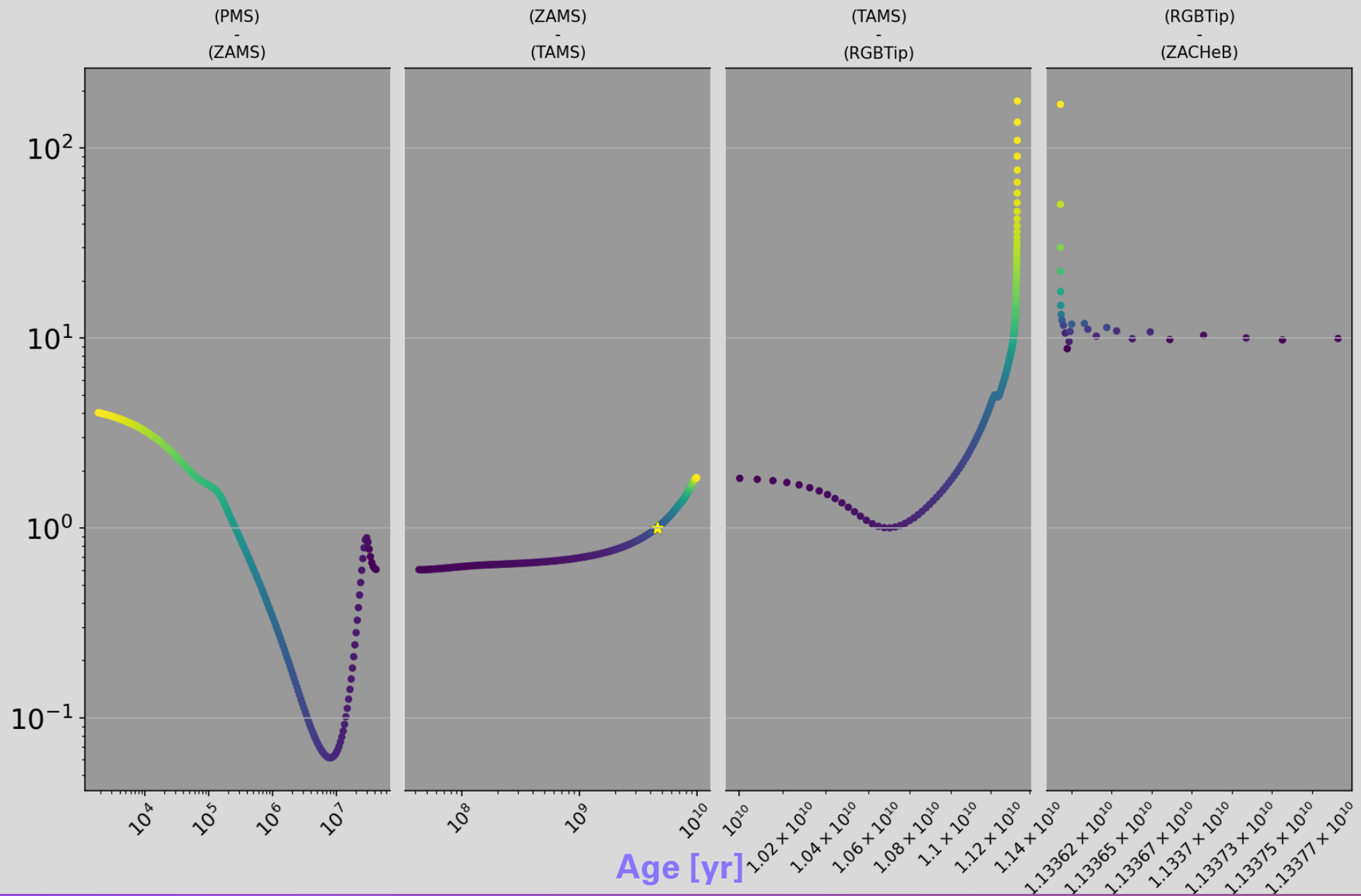
Normalized UVA Flux



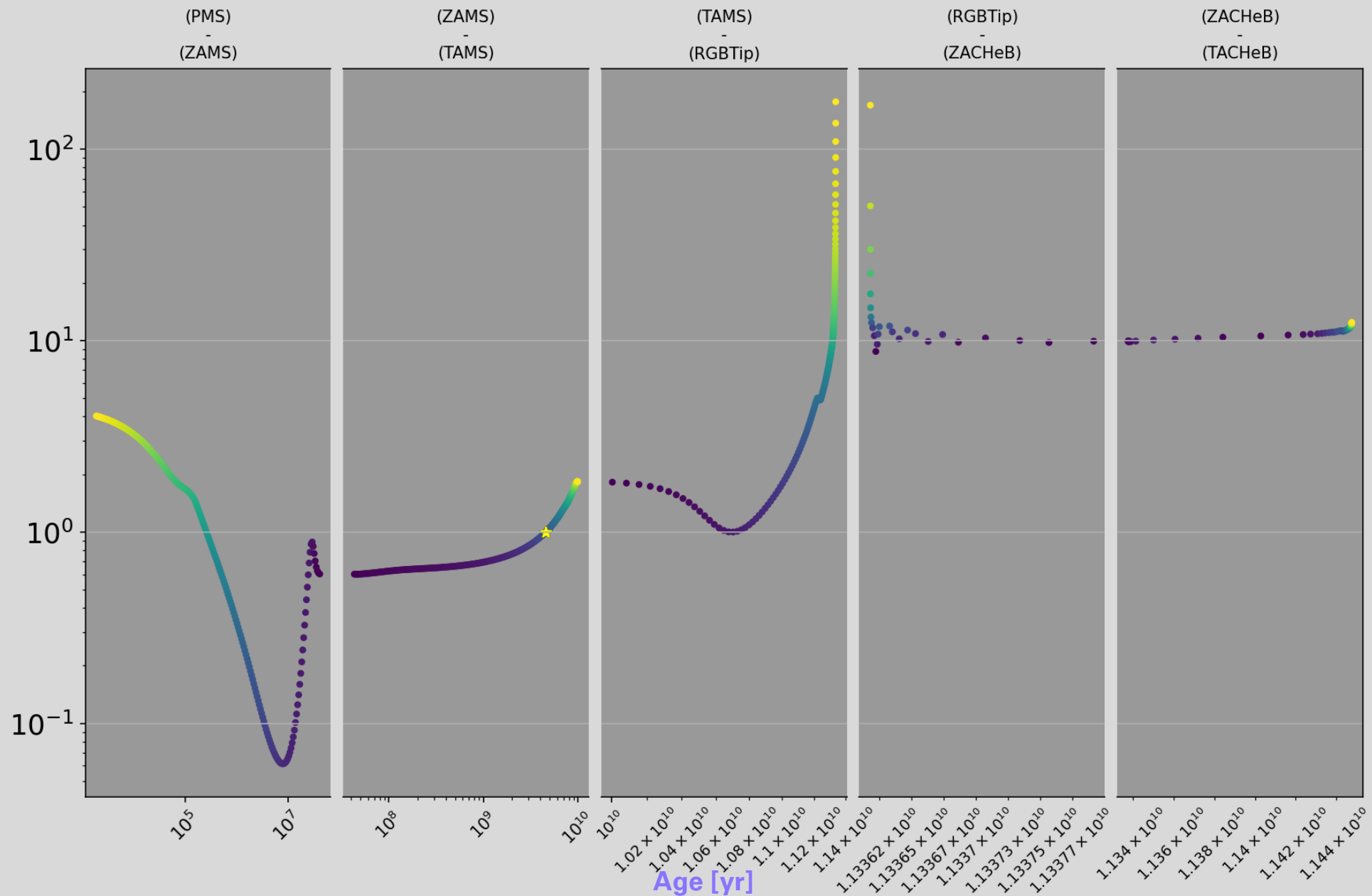
Normalized UVA Flux



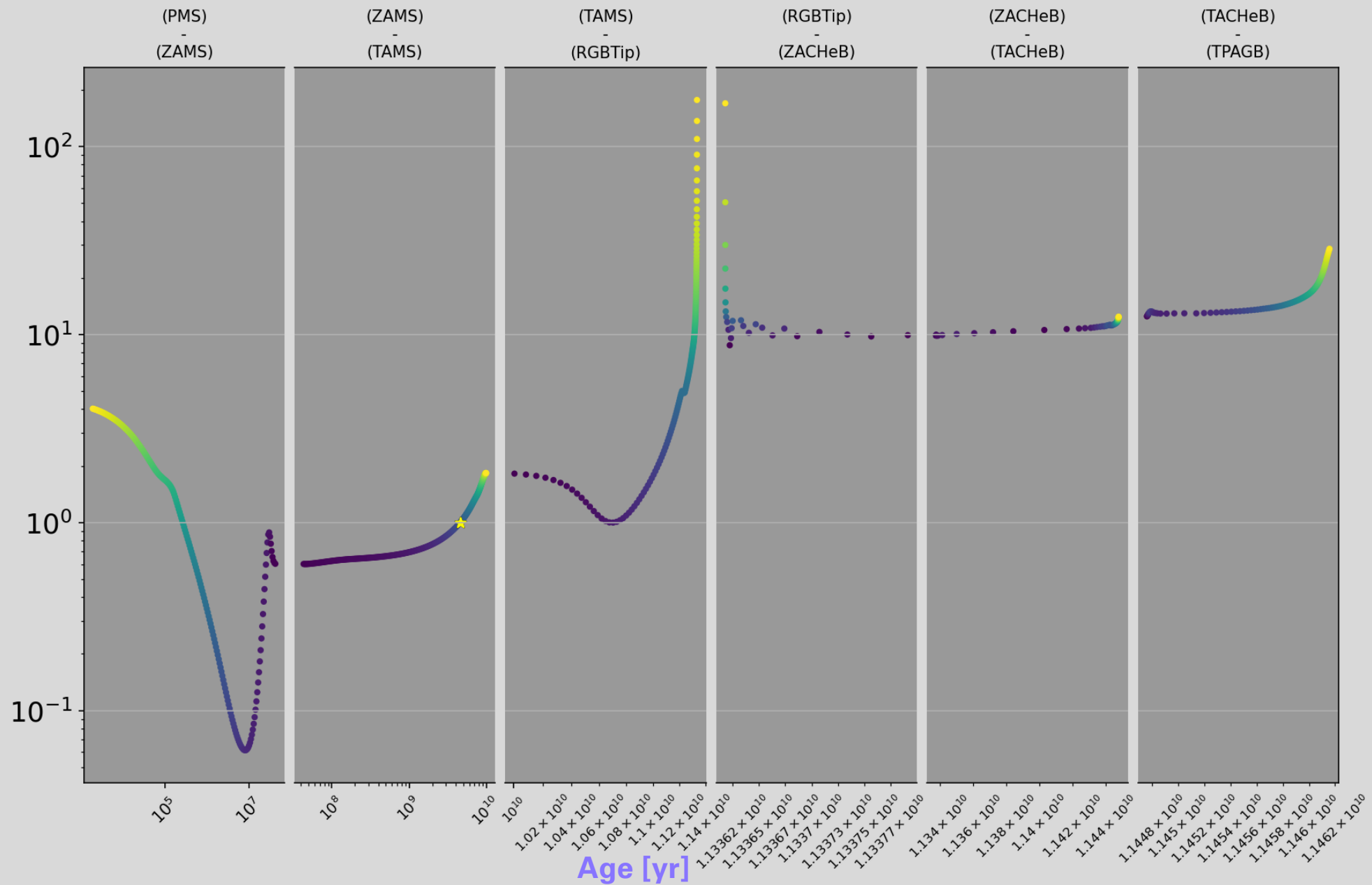
Normalized UVA Flux



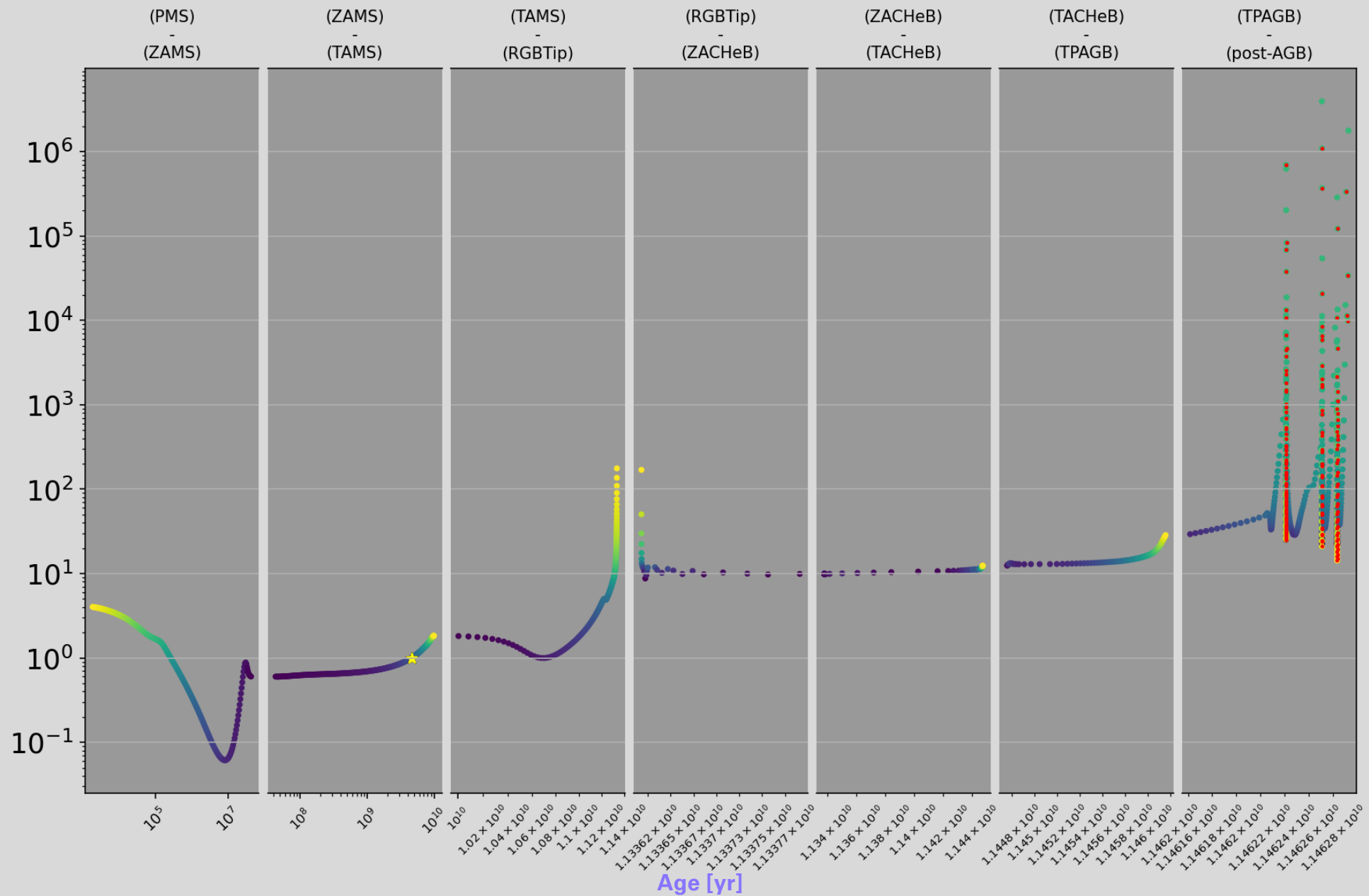
Normalized UVA Flux



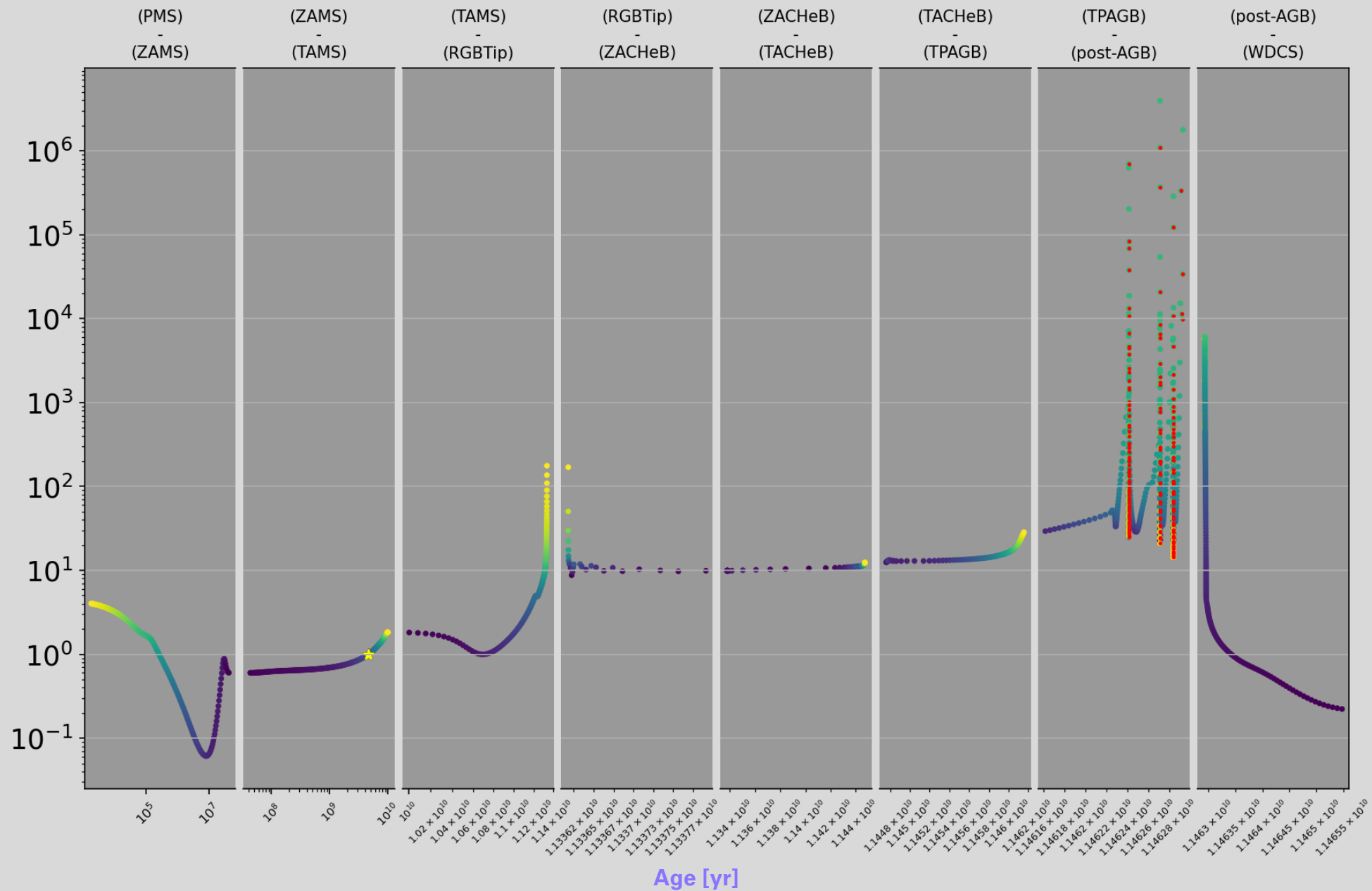
Normalized UVA Flux



Normalized UVA Flux



Normalized UVA Flux



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Thank you!