**Figure 1: Intergalactic Background Light (EBL)**

- **Windhorst+ (2011):** Panchromatic HST Zodi
- **Kelsall+ (1998):** DIRBE Zodi (sunlight + dust)
- **Solar spectrum energy (normalized):**

**Wavelength** $\lambda$ ($\mu$m)

<table>
<thead>
<tr>
<th>$\nu \cdot I_\nu$ (nW m$^{-2}$ sr$^{-1}$)</th>
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<tbody>
<tr>
<td>$10^{-4}$</td>
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<td>$10^{-3}$</td>
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**JWST caustic-transits**

- $z > 7$ Pop III BH accr:
  - 1/2 clusters/yr
  - 1/3 clusters/yr for $z > 7$ Pop III stars:
  - 1/3 clusters/decade
  - 1/30 clusters/decade

**Total Pred. iEBL (Andrews+ 2017)**

- **Spheroid sky - SB**
- **Disk sky - SB**
- **Unobscured AGN sky - SB**

**EBL Direct measurements**

- Pioneer @ 4.6 AU
- HESS Blazars
- HESS Direct
- MAGIC Blazars

**Kelsall+ (1998):** DIRBE Zodi (sunlight + dust)

**EBL from $\gamma$-rays:**

- HESS Blazars
- HESS Direct
- MAGIC Blazars

**Diffuse EBL-limit**

- ~1000 Pop III objects/arcsec$^2$
- ~100
- ~10
- ~1

**Windhorst+ (2011):** Panchromatic HST Zodi EBL from $\gamma$-rays:

- EBL Direct measurements
- Pioneer @ 4.6 AU
- iEBL: extrapol Driver+ (2016)