P19: SOFIA/HAWC+: Upcoming Capability for Detailed Mapping of the Galactic Center Magnetic Field

- **Magnetic fields are very important astrophysically but notoriously difficult to study directly**
  - **Far infrared emission from magnetically-aligned grains can probe the direction and strength of the aligning field**
  - **Much of what is known about the Galactic Center magnetic field has been derived from KAO polarimetry with ~20" beams**
  - **HAWC+, to fly on SOFIA's 2.7m telescope in 2015, will bring dramatically improved capability:**

HAWC+ Vital Statistics:

- 5 bands, 52-216um
- 40x64 pixel arrays
- FOV: 5 to 60 arcmin^2
- Beam size 5"at 53um
- Galactic center is a prime target for HAWC+