Splinter session #3 summary: Stars & Secondary Calibrators

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Points to be discussed

- Status of the models for “normal” stars:
  - Accuracies (vs instrument requirements)
  - Dependencies on Teff, metallicity, gravity, ...
  - Model assumptions

=> Presentation of 'Cohen' templates + Decin models; FIR extrapolations, accurate to ~5%, so fulfils the requirements

But discrepancy for βPeg of 9%

- Network of calibration stars

=>'Cohen' templates: 585 stars at 70μm (>100mJy) -> 5 stars at 520μm.

Points to be discussed

- Far-IR excess: chromospheres / debris disks

=> (sub-)mm observations to check for chromospheres (only possible for the brightest 10). Observing programs (mm) going on, first results presented. SCUBA Submm program accepted.

=>Konkoly ISOPHT minimaps on 'normal' stars, down to 10mJy

- Available/Future observations to constrain the models

ISOPHT, (sub-)mm programs, Spitzer,...

=>Leen wants high resolution optical + NIR spectrocopy to determine T(τ)

=>Spitzer MIPS/IRS, "who wants to do it?"

Points to be discussed

- What is the role of secondary flux calibrators?

=> *Candidates: UCHII, protostars, AGB stars: No*

PPN, Herbig Ae/Be stars, AGN but accuracy?

=> *limited use for PACS*

=> *Maybe for SPIRE? (If too short on stars)*

=> *limited use for HIFI*

Points to be discussed

- How well are (emission, absorption) lines known of (post-)AGB, PNe, HII regions?
  - How useful as wvl calibrators / line profile determination?
  - Spatial extent will be an issue, e.g. PACS case: source sizes ranging from <2” to ~1'

=> *Discussion mostly on CO lines of AGB stars: strong lines that can be observed by HIFI, but model predictions accurate to 30% => for monitoring the stability of the HIFI instrument (needs to be done with accurate pointing)*

- Need for further modelling and observations

=> *groundbased measurements (high J)*

- Spatial distribution => *easily 100 sources, how many needed depends on frequency of observing*