The IR view of massive stars: the main sequence and beyond

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IAU GA in Beijing

Though multiwavelength astronomy was born about fifty years ago, the full use of multiwavelength diagnostics is quite recent. Even in the last decade, astronomers still mostly relied on the optical domain. This is certainly going to change, as most current and future instruments are dedicated to the infrared, from the near- to the far-IR bands.

While this domain is a known "must" for low-mass stars, especially the very low-mass ones, the infrared emission of high-mass stars has been often neglected. Many advantages of the infrared must however be underlined, like its strong potential for circumstellar material and atmosphere diagnostics, and its insensitivity to obscuration. Its interest with regards to the first generation of stars, thought to be very massive, is also well known.

It is thus important to discuss the results obtained for massive stars from existing IR facilities (VLTs/VLTI, Spitzer, Herschel, CRIRES, GAIA, ...) as well as tools for interpreting IR data (e.g. atmosphere modeling) and observing capabilities of future facilities (ELTs, JWST, ...). To this aim, we will hold a 1.5-day special session (SpS) at the next IAU General Assembly meeting in Beijing.

Topics to be presented during this special session:
- Obscured and distant clusters
- Stellar and wind parameters
- Matter ejection and feedback

Note there will also be a joint discussion on 'Very Massive Stars in the Local Universe' during the same GA.

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