Q & A (Monday, July 12 2021)

Q. Is the material we've been working with open source, i.e. could we share the code/notebooks with folks outside of the summer school?

A. Yes, any material can be shared with interested students.

Q. why does it take longer for Fermi than radio?

A. Radio telescopes are large (huge collecting area). Gamma-ray photons are difficult to detect, background is an issue. Gamma-ray positions are not as accurate.

Q. What's the different between timing analysis and just generating a light curve?

A. In timing analysis one is interested in finding periodicity, studying consistency in periodicity and all questions related to time domain. In “just” a light curve, the period of the pulsar might be known, and one just wants to remove the pulsar contribution from a data set or is looking at the overall characteristics of the pulses from a theoretical perspective.

Q. what do you mean by "weights"?

A. "Weighting" is the inclusion of probability that a photon comes from a particular source in the analysis.

Q. What does folding mean?

A. Combining or superposing many pulses together in order to build up the pulsar signal.

Q. How does the weight not affect the features themselves? Are there enough photons from the source that we still get a feature even with the small weighting?

A. The source signal will be there. With weight we want to reduce the background or noise contribution. If the source is faint, the background will overwhelm the signal. By using weights one can reduce the background photons.