SHAO Summer Internship Logging: 4
Author: Tin-yau Yu
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This is my fourth day of my summer internship, in brief, I have completed 12 PSR profiles and looking forward to completing ALL profiles on Friday. I can also access to all the observation data which means there are no more permission denied OID.

In details, I use linux **tmux** to do multiple folding simultaneously to speed up the process. I was thinking to build a small program to read PSR's parameters and OID, then put the folding processes into the background. It would be an easy *loop* program, I think it would be helpful if I need to do further folding later.

In addition, I have studied the differences between a successful search and an unsuccessful search. Successful search has a significant CHI-square reduced for DM and period, this means the data has pulses match the pulsar's DM and period. However, I figured out that I do not understand the folding process completely.

There was a small chat with Prof. Zhang, and got a better understanding of stage two. The first milestone we need to reach in stage two is to get PSRs agreement between blink search and specific search (results in Xue et al. 2017) from the same OID. This milestone will give great confidence to our blink search procedure.

Last but not least, I have an idea to deal with the OID that do not have corresponding PSR detected in Xue et al. 2017. If I have time I can create a program that search for known PSR or even blink search for those OID. This require huge computation power if the computer runs folding for every 50 PSRs. The main challenge here is to think of a way to identify the PSR with less data. Indeed, putting 50 *prepfold* into the background and run simultaneously would be helpful, but I do not know whether this would break the cluster. I will continue to look for the solution in my free time.