An interesting way to search radio burst and RFI removing

Outlet

1. Introduction
   1. FRB brief introduction
   2. Interesting area
   3. FRB search method catalog
2. 2D FFT property
   1. 1-D FFT brief introduction
   2. 2-D FFT work on image
   3. periodic signal after 2-D FFT
3. 2DFFT search
   1. turn curve into straight line (re-bin)
   2. 2-D FFT
   3. search along each line(polar-transform)
   4. 1-D FFT
   5. angle – DM relationship
4. parameter analysis
   1. angle and radius
   2. influence on SNR
5. compute complexity analysis
   1. benchmarking
   2. compare with other algorithm
6. RFI removing
7. easy for parallel compute
8. conclusion

Implement on GPU in the future