

**Proposal Abstract:**

The radiation mechanism of the pulsar is still poorly understood though the discovery of the pulsar has been more than a half century. The observation of the bright and nearby pulsars (PSRs B1133+16, B1237+25, and B1541+09) can provide insight into the location of the radiation and constraints on the emission beam geometry. Moreover, the polarization observation for these objects using the great sensitivity of FAST can detect the polarization emission state of the extremely weak emission windows, these polarization emission information are good for understanding the radiation in the magnetosphere, as well as testing the rotating vector model (RVM). Therefore, a detailed analysis of these issues close to the radiation physics can help gain insight into the pulsar emission mechanism. Compared with other pulsars, the intrinsic radio emissions of the three nearby pulsars are little affected by the effect of the interstellar scintillation. Also, the radiation behavior of the extremely weak emission regions of these objects can be detected using FAST under a short integration time can constrain on the emission beam geometry well.