

MWA SHI SCIENCE PROJECT PROPOSAL

[Date circulated: 2020/07/10]

Project Title:	A follow up study of the weak impulsive quiet sun emissions
Principal Contact: The Principal Contact must be a member of the SHI collaboration (as defined in the MWA SHI Policy) and <i>cannot</i> be a student. Please provide institution affiliation and email address.	Divya Oberoi National Centre for Radio Astrophysics, Tata Institute for Fundamental Research, Pune, India. div@ncra.tifr.res.in
List of people involved: Please specify all the people who are expected to contribute to this project	Ayan Biswas (Graduate student, NCRA-TIFR), Surajit Mondal (Graduate student, NCRA-TIFR), Devojjyoti Kansabanik (Graduate student, NCRA-TIFR), Divya Oberoi
Anticipated duration of the project:	2020/06/15 – 2020/09/30 (end date uncertain due to Covid-19 pandemic)
Is this project a part of the requirements for obtaining a degree: If yes, please provide some details	Yes, it is a part of the Graduate School requirements for Ayan Biswas at NCRA-TIFR.
Project Summary: A recent MWA SHI study has established, for the first time, the presence of weak impulsive nonthermal emissions from the quiet Sun (Mondal et al., 2020, 895, L39). This work is follow up effort which will use data from an exceptionally quiet time (May-July 2020). These data were acquired as a part of the G0002 SHI observing proposal. Some of the key ideas to explore are : <ol style="list-style-type: none">1. How do the statistical distributions of the various properties of these events compare with those in the original study2. Explore the spectral structure of these emissions using data taken in the contiguous mode (as opposed to the picket fence mode)	