

### 3. Event analysis, Nat Gopalswamy

This is workshop mode. The participants will be divided into 6 groups. Each group will work with a lecturer to develop a complete picture of one type II burst event and its association with CMEs, shocks, and energetic particle events.

#### Events:

mtype II	SEP date	onset	peak	CME	W	V	Vspa	Flare	AR	Class	onset	peak	
2012/07/06	23:09	2012/07/07	00:05	07:45	06/23:24	360	1828	1907	S13W59	11515	X1.1/--	06/23:01	06/23:08
2012/07/19	05:24	2012/07/19	06:40	14:25	19/05:24	360	631	1631	S13W88	11520	M7.7/--	19/04:17	19/05:58
2012/09/27	23:44	2012/09/28	01:20	04:45	28/00:12	360	947	1093	N06W34	11577	C3.7/1F	27/23:36	27/23:57
2013/04/11	07:02	2013/04/11	08:25	16:45	11/07:24	360	861	1369	N09E12	11719	M6.5/3B	11/06:56	11/07:16
2014/02/25	00:56	2014/02/25	03:50	00:10	25/01:25	360	2147	2153	S12E82	11990	X4.9/--	25/00:39	25/00:49
2014/04/18	12:55	2014/04/18	13:40	01:50	18/13:25	360	1203	1359	S20W34	12036	M7.3/--	18/12:31	18/13:03

Information extracted from:

[https://cdaw.gsfc.nasa.gov/CME\\_list/radio/waves\\_type2.html](https://cdaw.gsfc.nasa.gov/CME_list/radio/waves_type2.html)

[https://cdaw.gsfc.nasa.gov/CME\\_list/sepe/](https://cdaw.gsfc.nasa.gov/CME_list/sepe/)

FIT-files as well as QuickView-images from e-Callisto network available here:

<http://soleil.i4ds.ch/solarradio/callistoQuicklooks/>