

A NEW VIEW OF NOVAE:

RADIO OBSERVATIONS OF V1723 AQL

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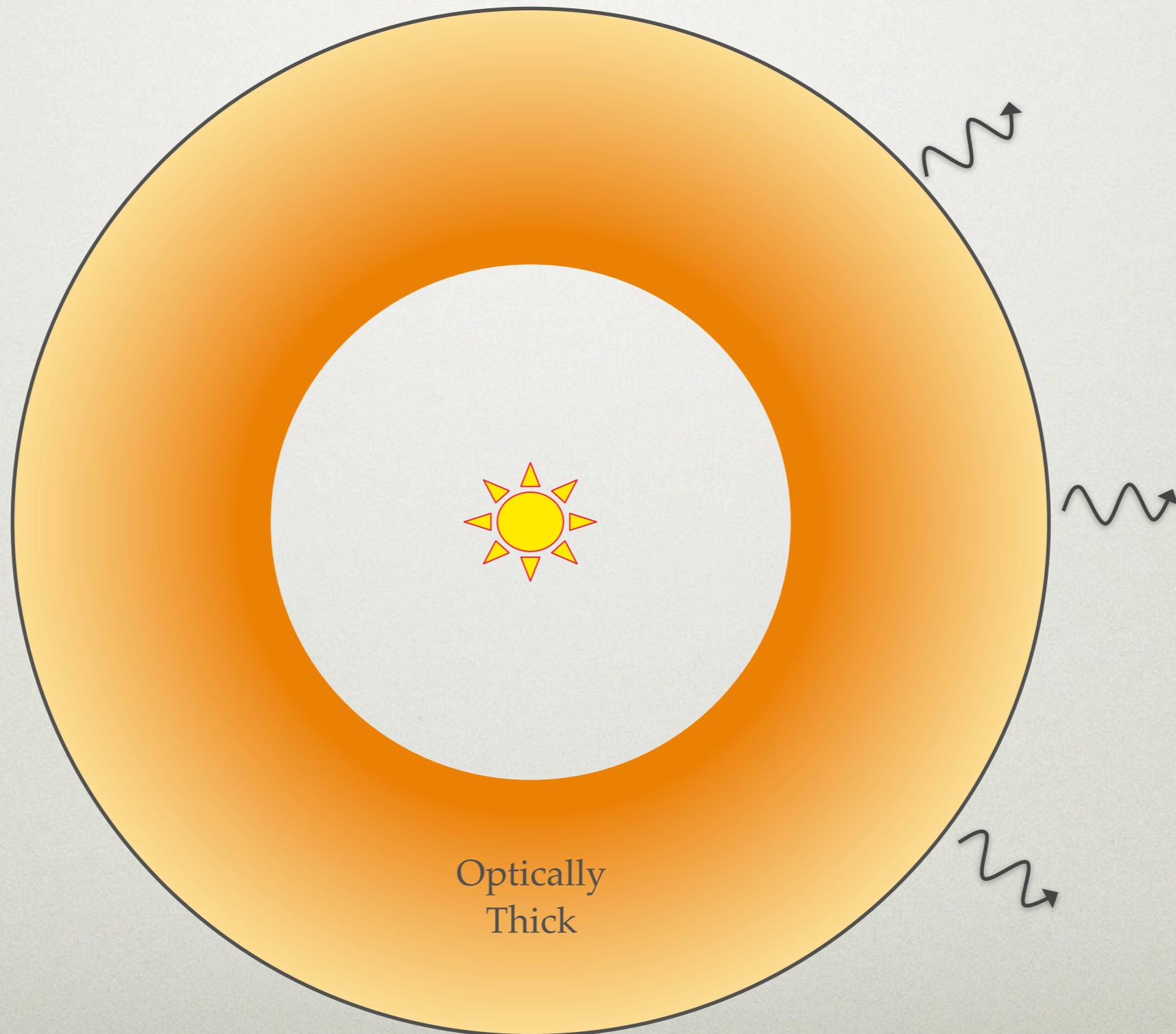
WITH THE E-NOVA PROJECT:

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STEWART EYRES, MIKE BODE, TIM O'BRIEN, YONG ZHENG

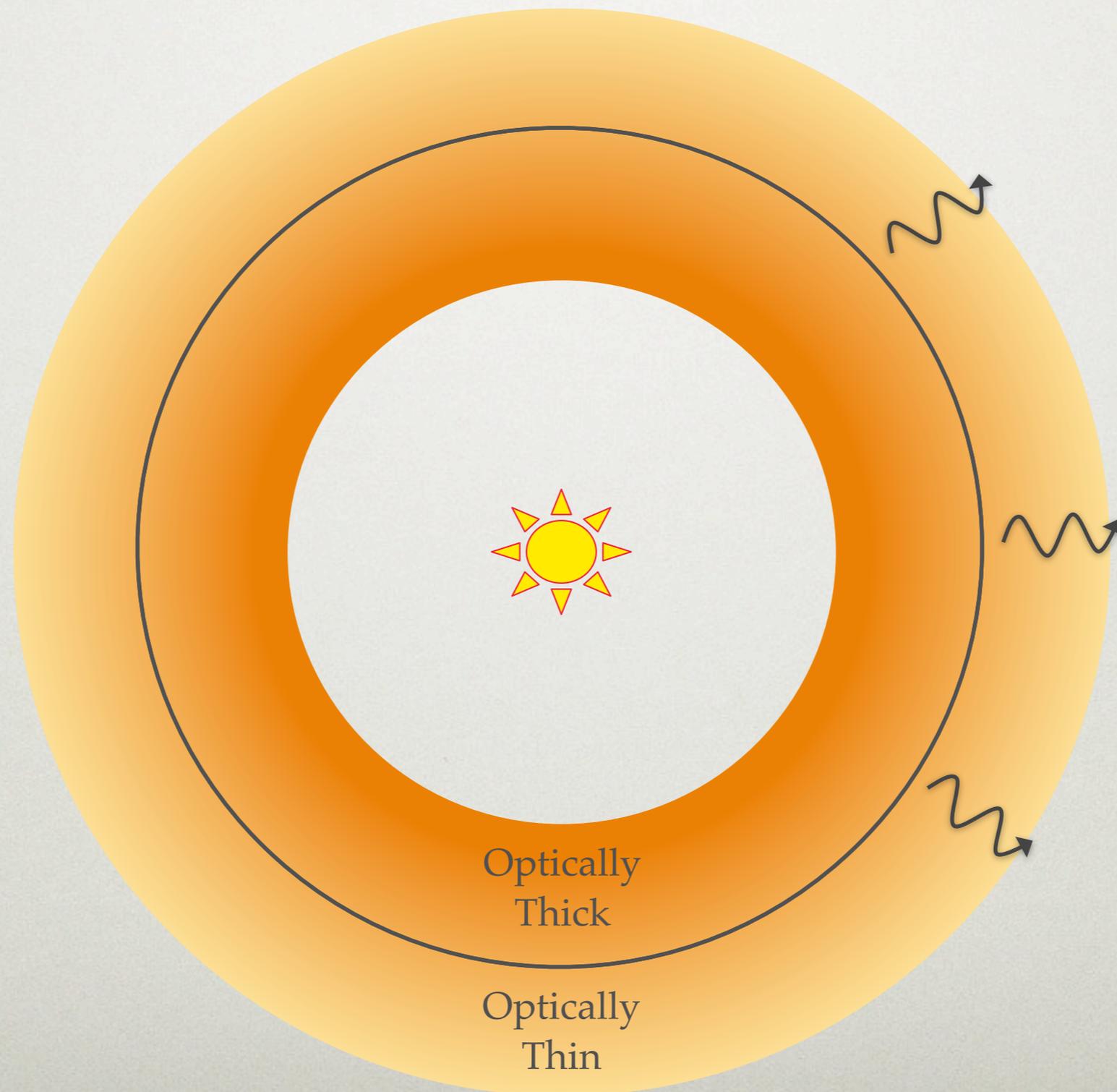
V1723 AQL

- Went into outburst September 11th, 2010
- Optical implies a typical 'fast' nova
- $v \sim 1500 \text{ km/s}$
- Neither an embedded nor a recurrent nova
- First northern classical nova after expansion of VLA bright enough for detailed observation

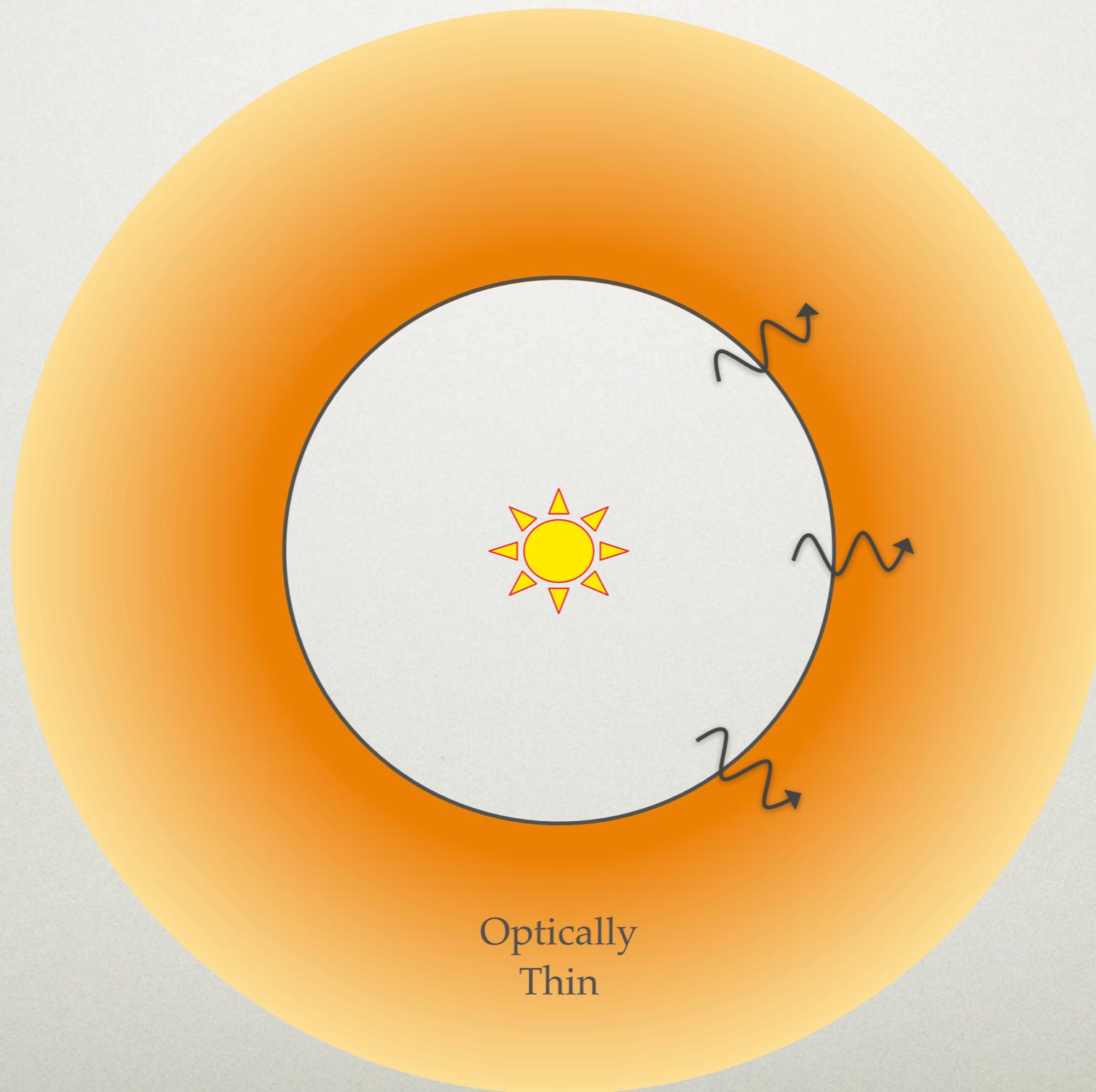
RADIO EMISSION FROM NOVAE



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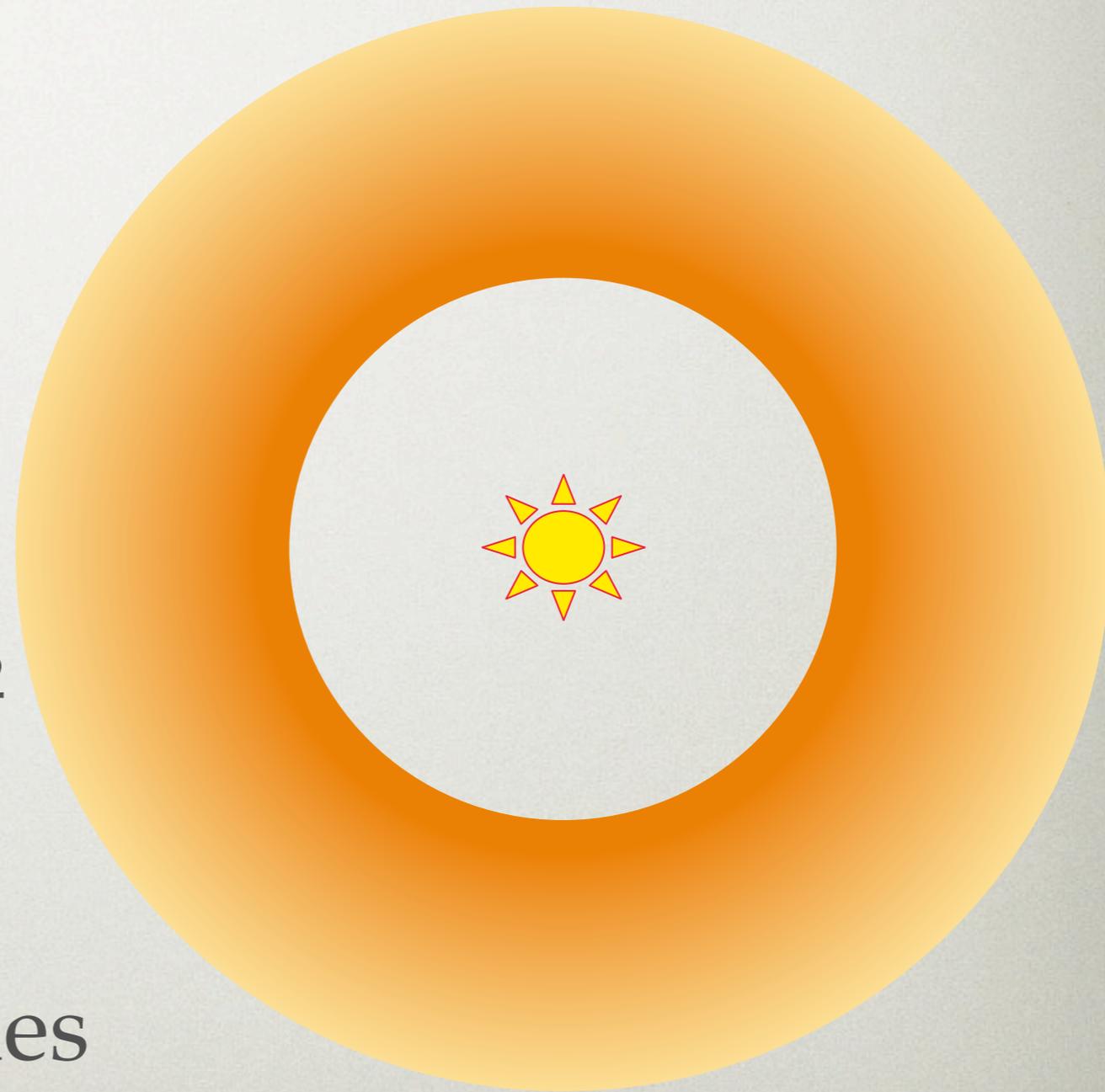


RADIO EMISSION FROM NOVAE

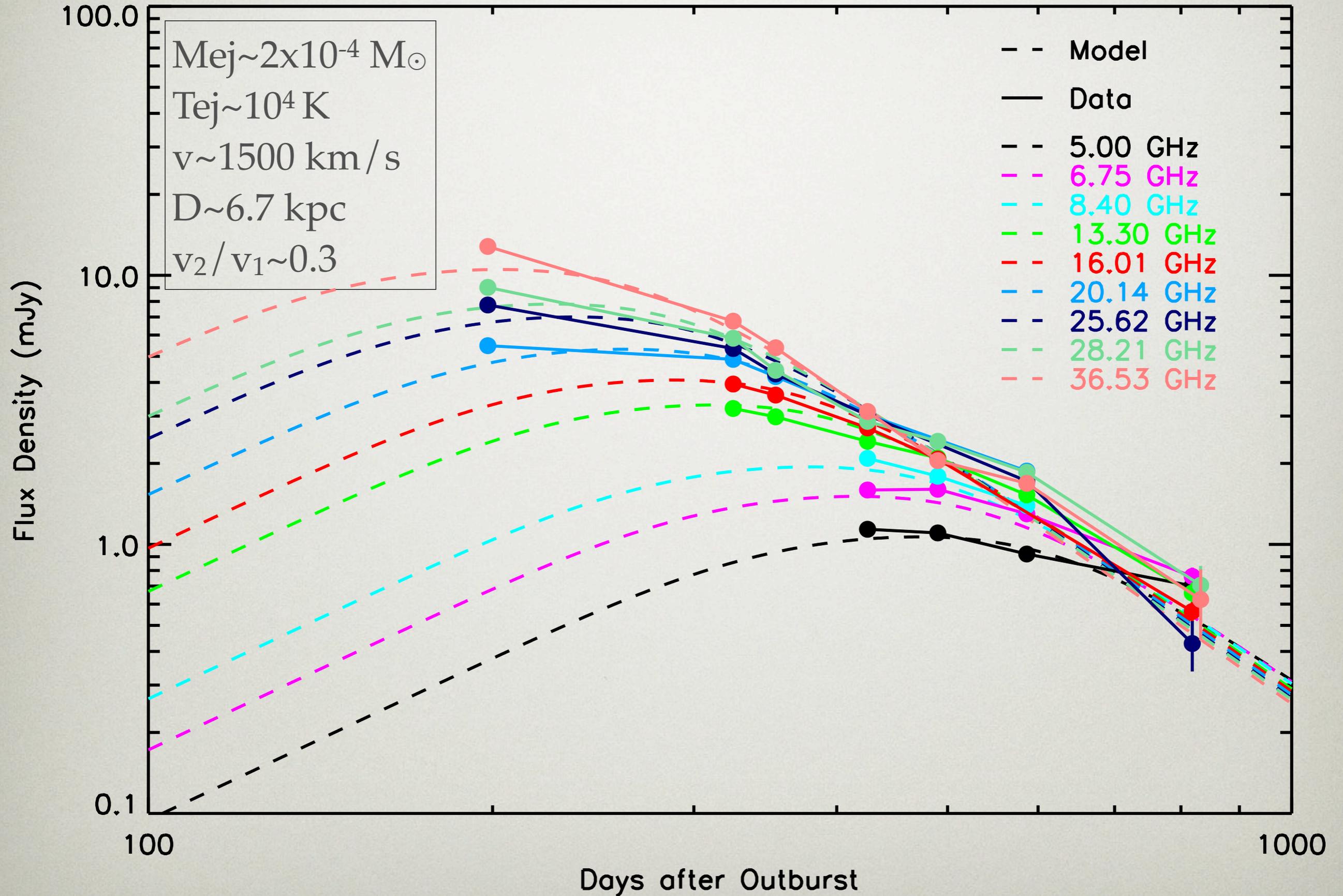


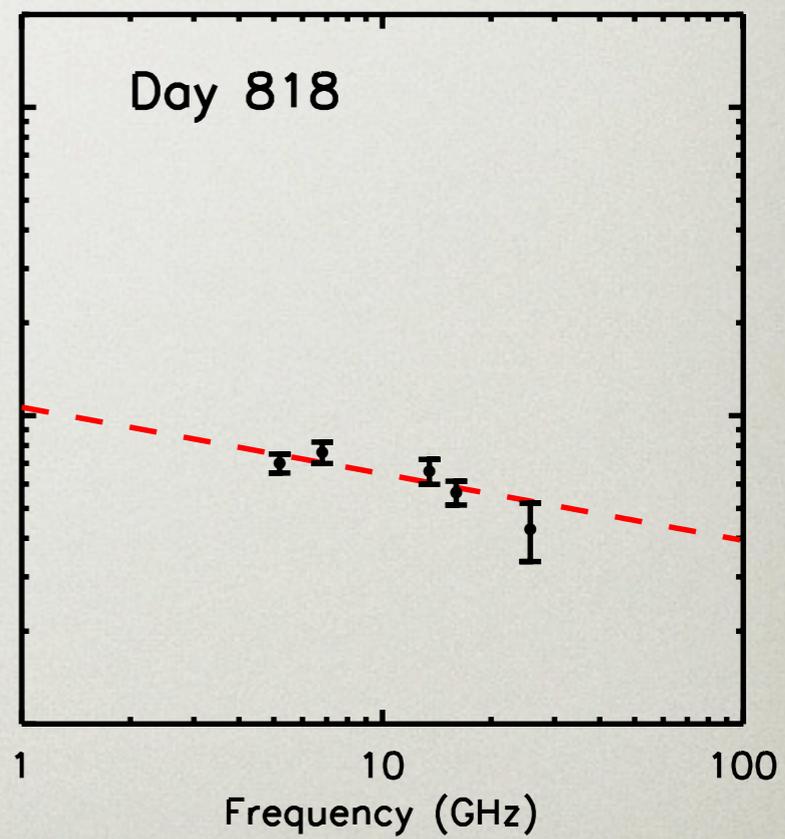
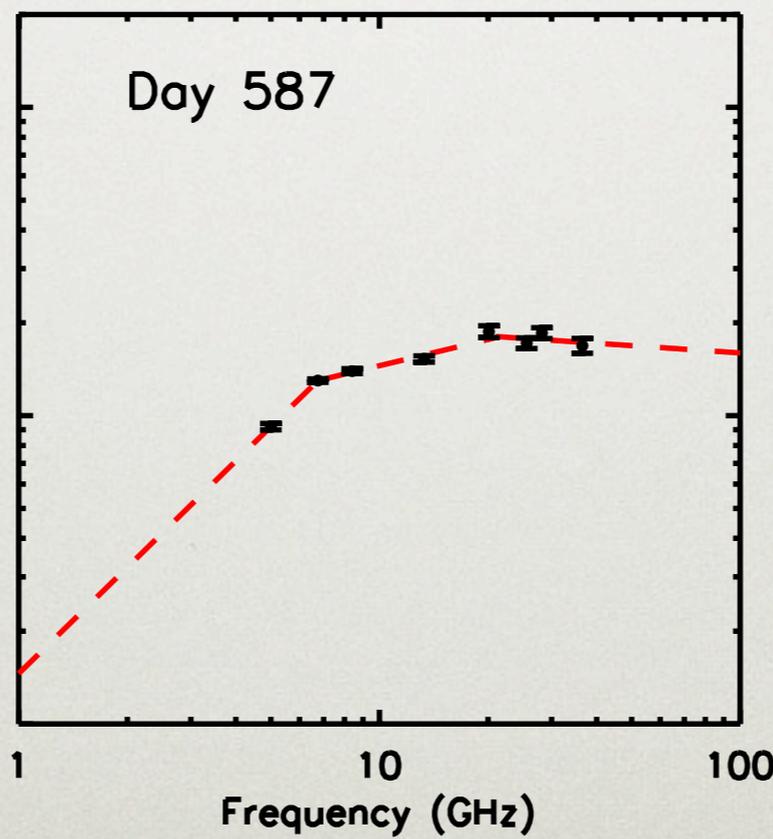
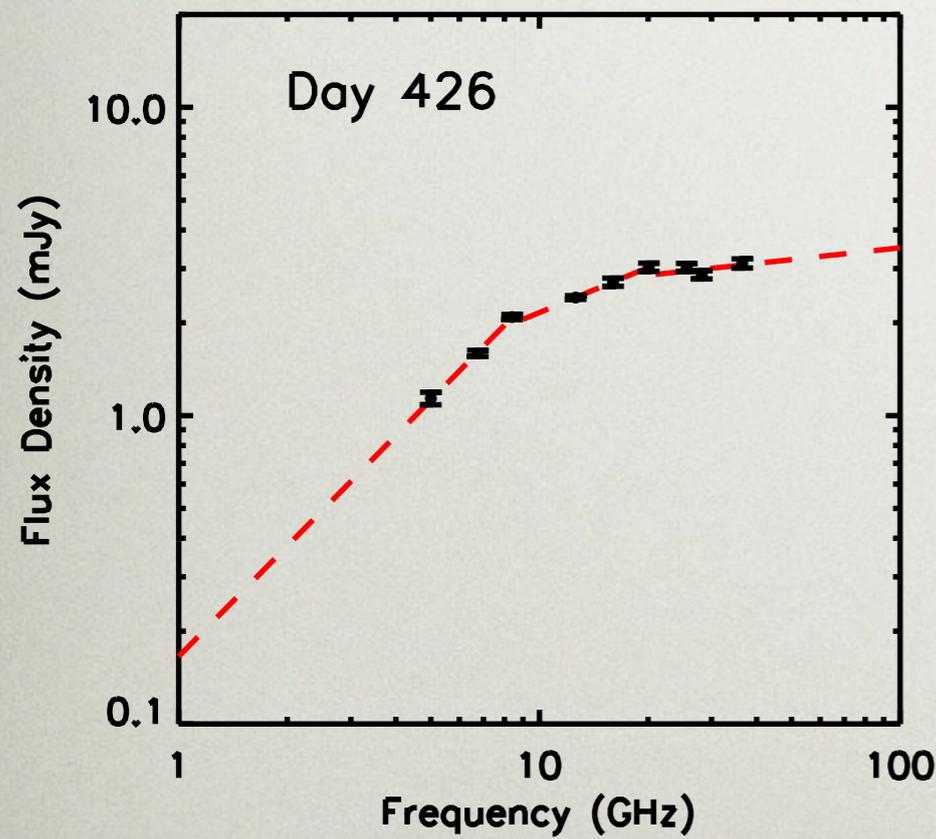
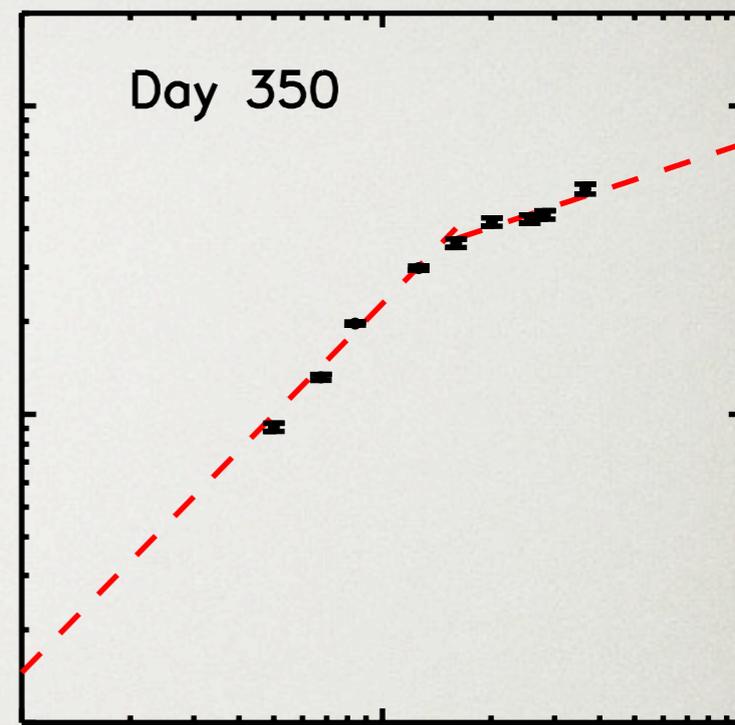
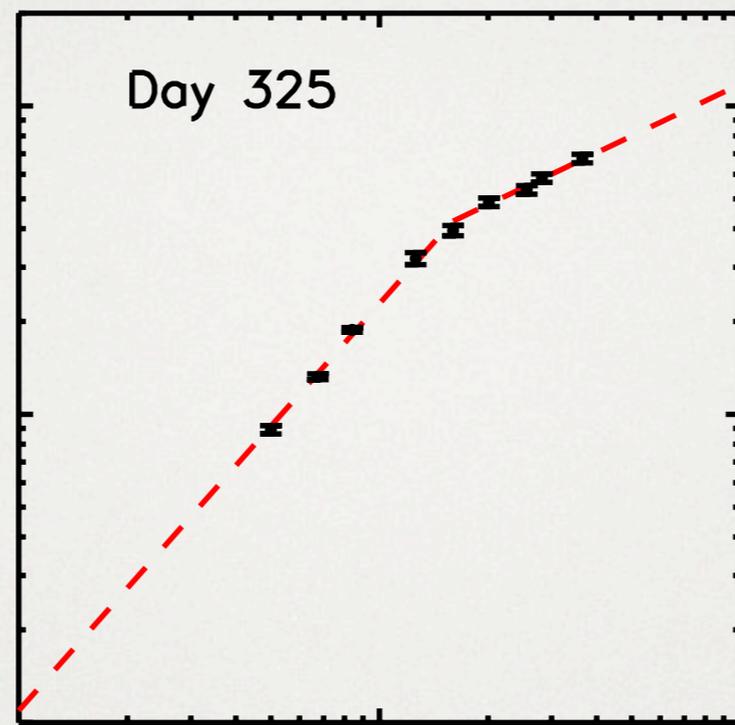
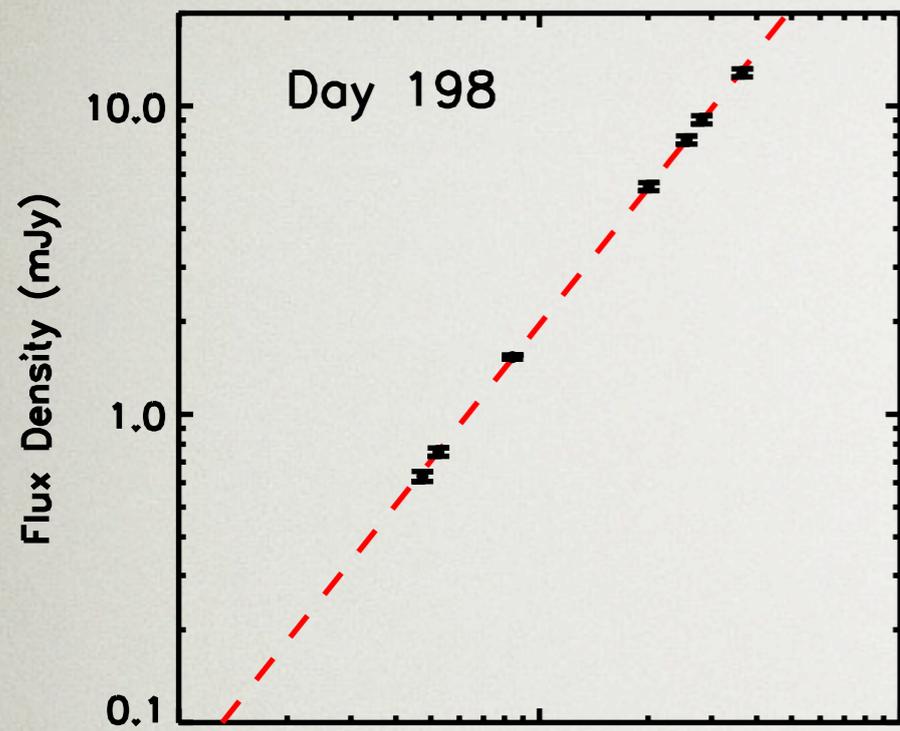
RADIO EMISSION FROM NOVAE

- Thermal Free-Free Emission
- Spherical Shell
- smooth density $\propto 1/r^2$
- Constant $T_e \sim 10^4$ K
- distribution of velocities

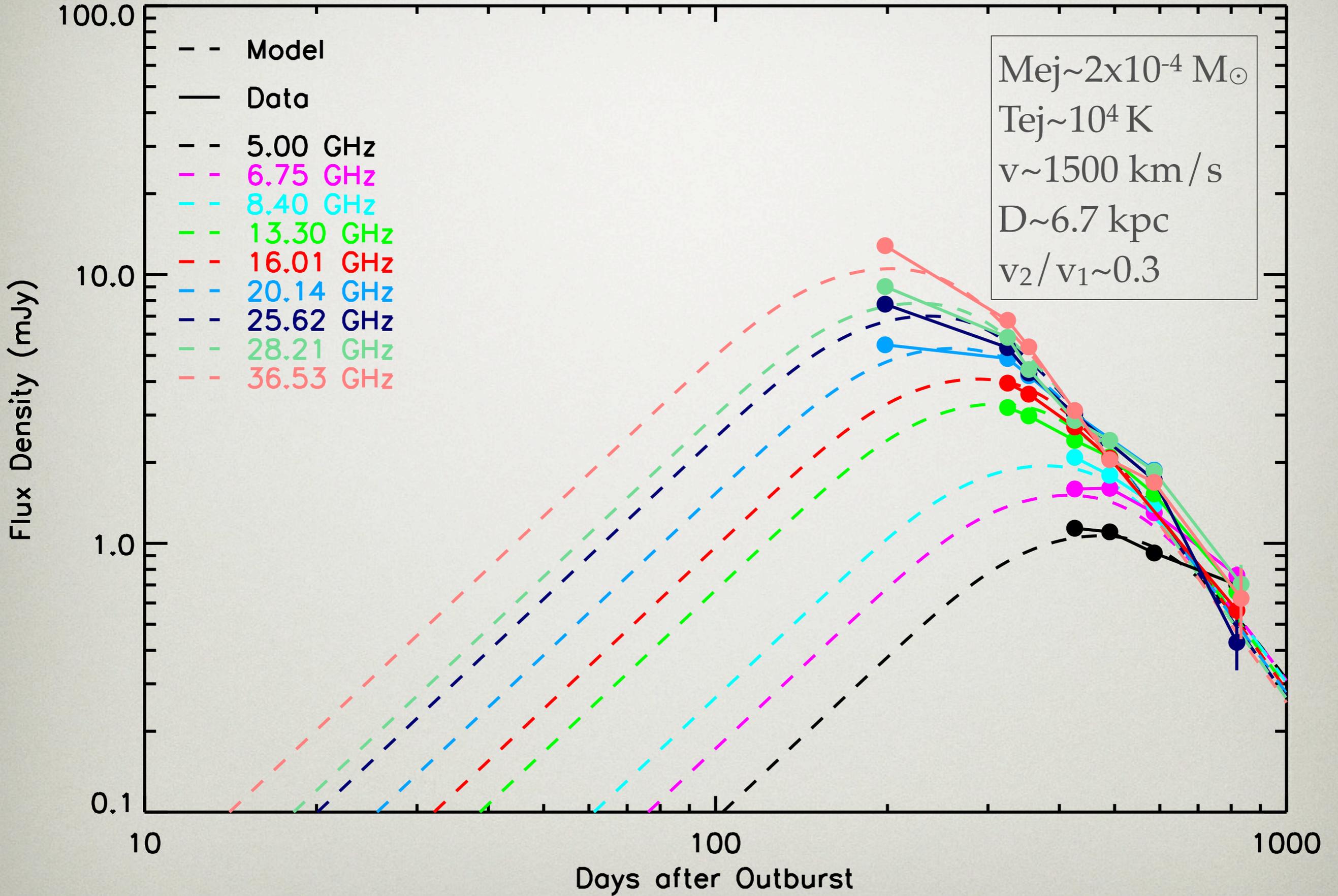


V1723 Aql

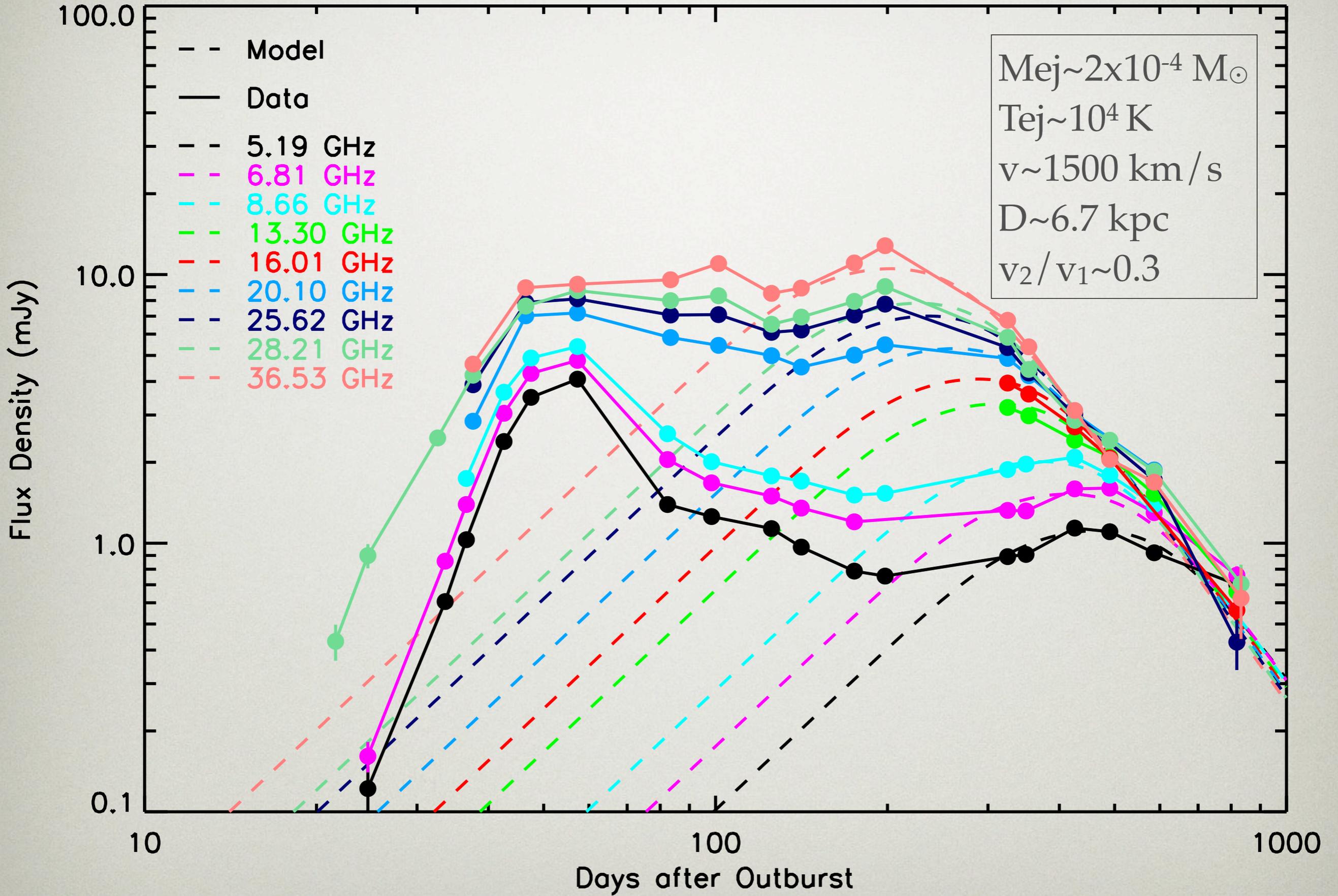




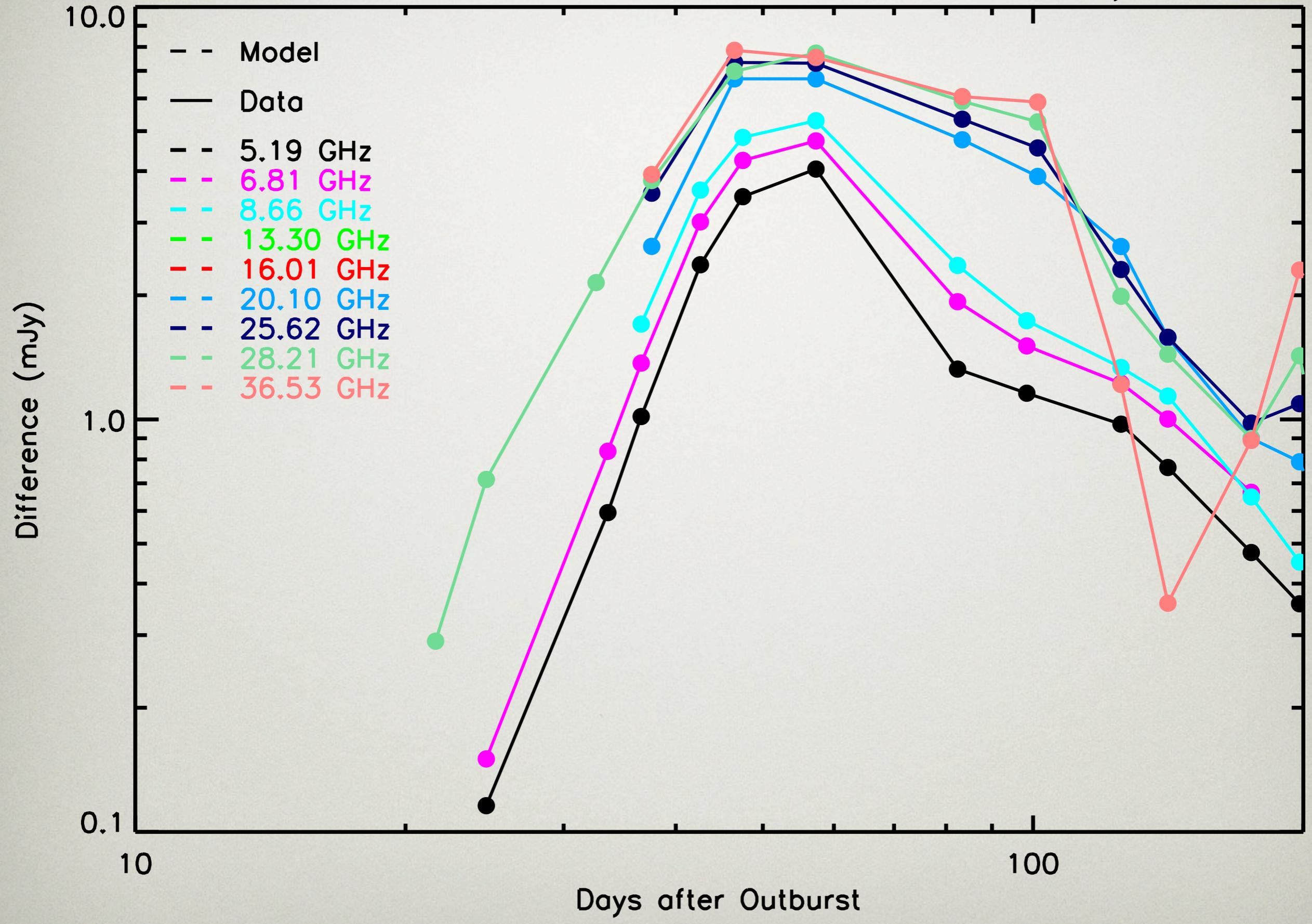
V1723 Aql



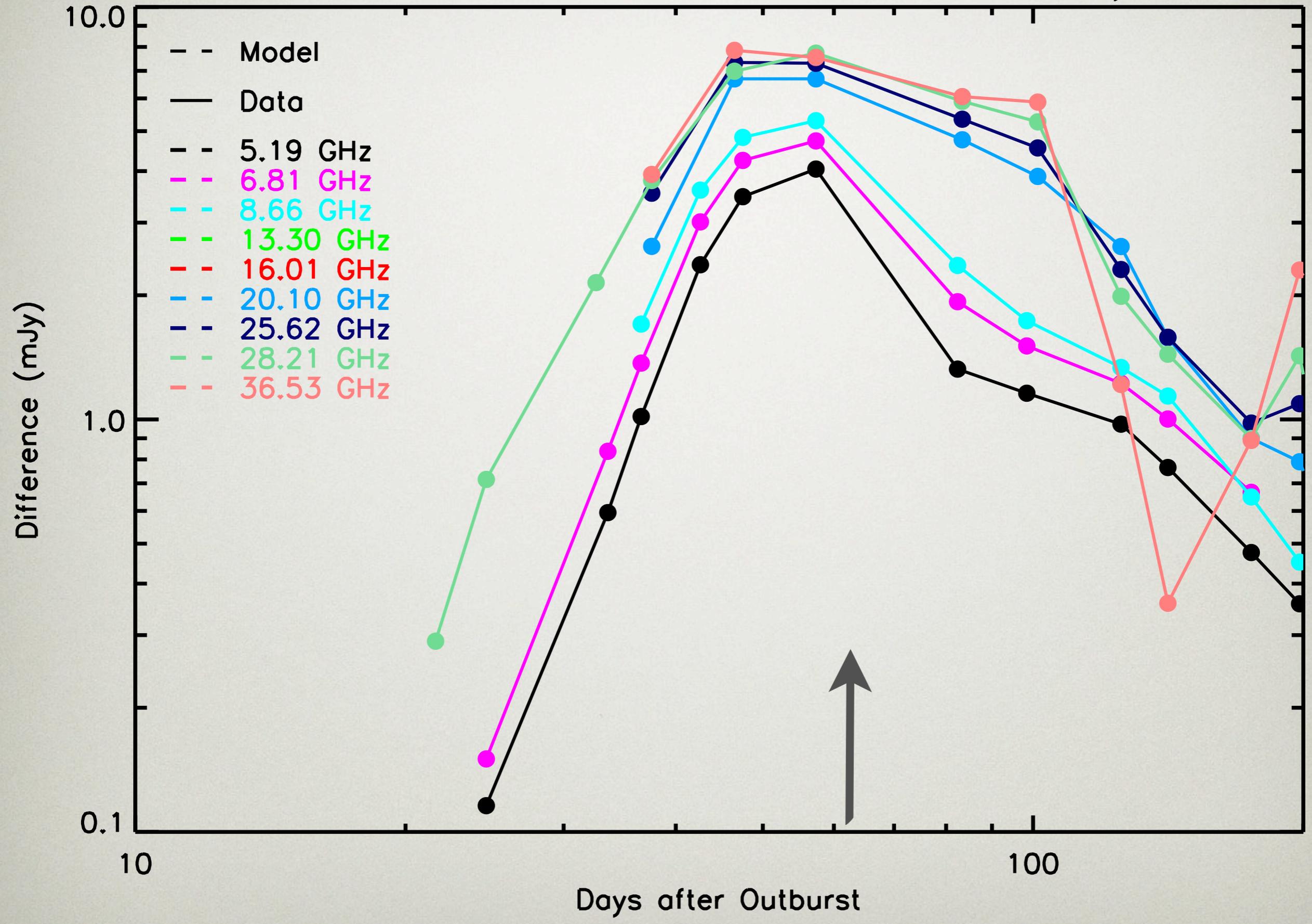
V1723 Aql



Difference between observations and thermal-only shell



Difference between observations and thermal-only shell



Nova Sco 2012

