The A399-A401 pair

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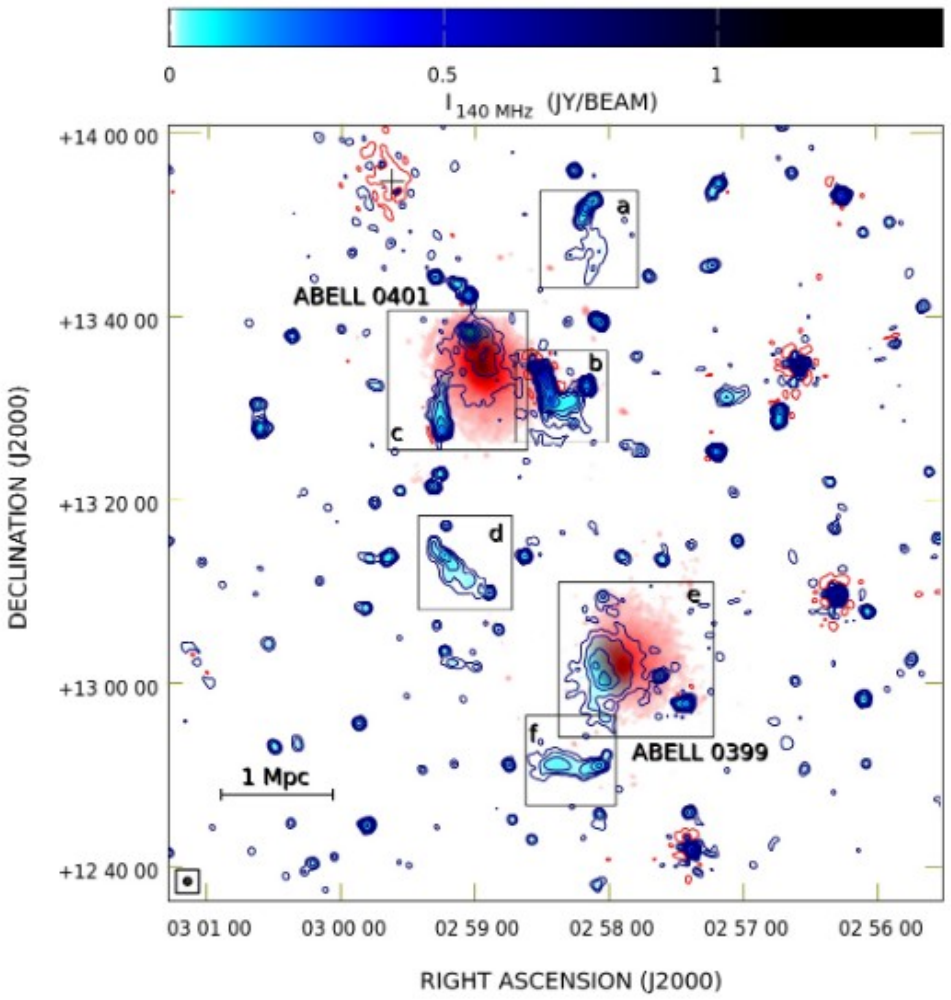
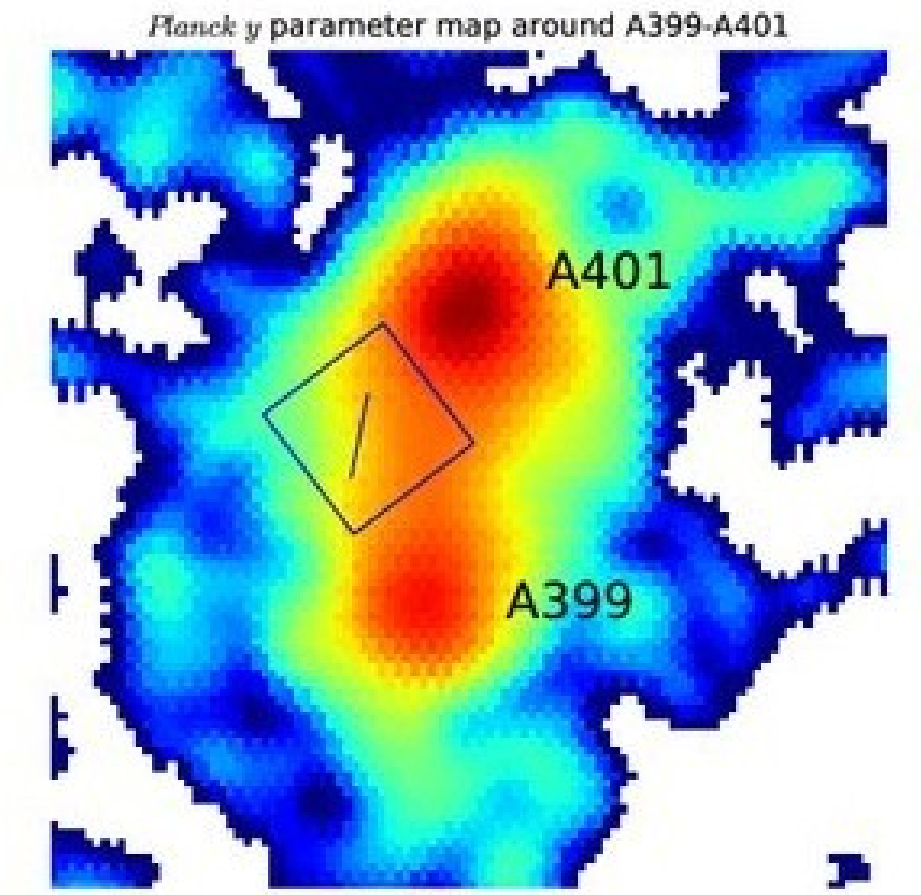


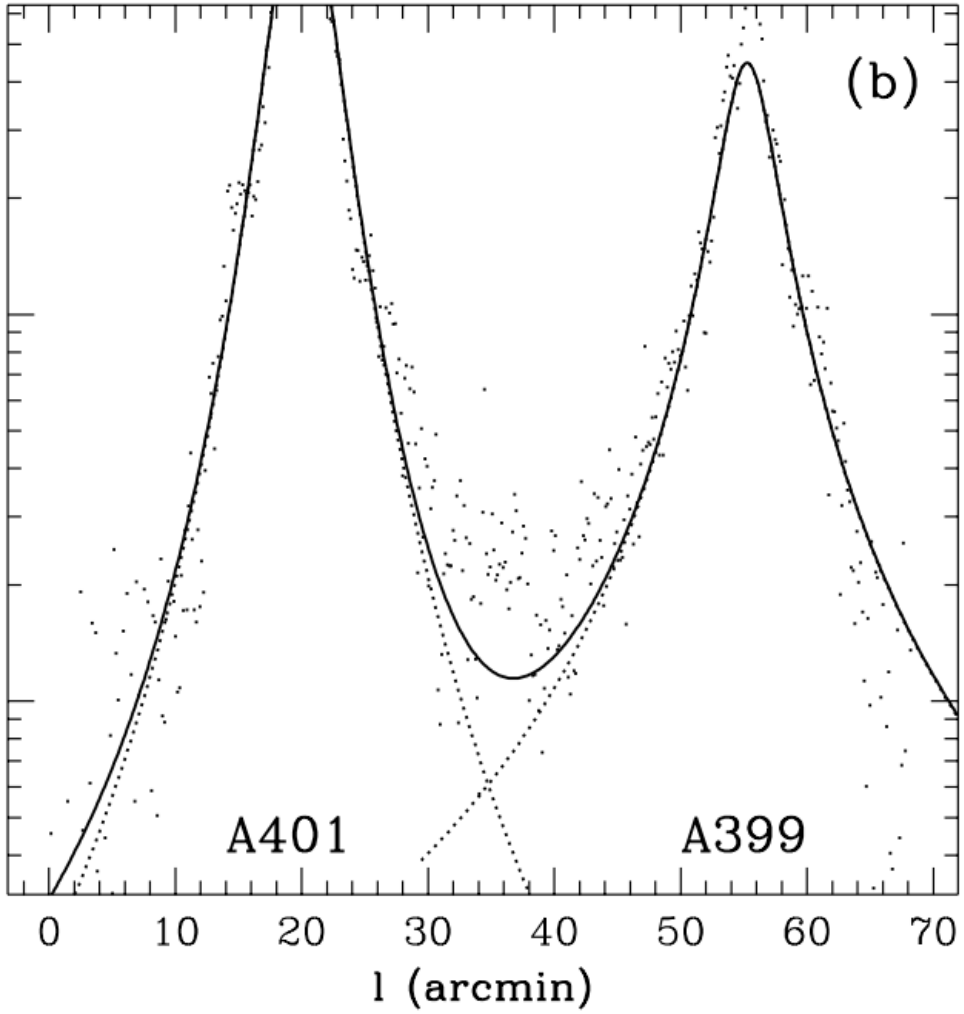
	A399	A401
z	0.0718	0.0737
Mass (10^{14} M_{sun})	5.7	9.3
kT_{ICM} (keV)	~7	~8

Inter-cluster emission



	Inter-cluster region
L_{proj} (Mpc)	~3
kT_{ICM} (keV)	6.5 ± 0.5
Y_{SZ} (10^{-6})	22.2 ± 1.8

Inter-cluster emission



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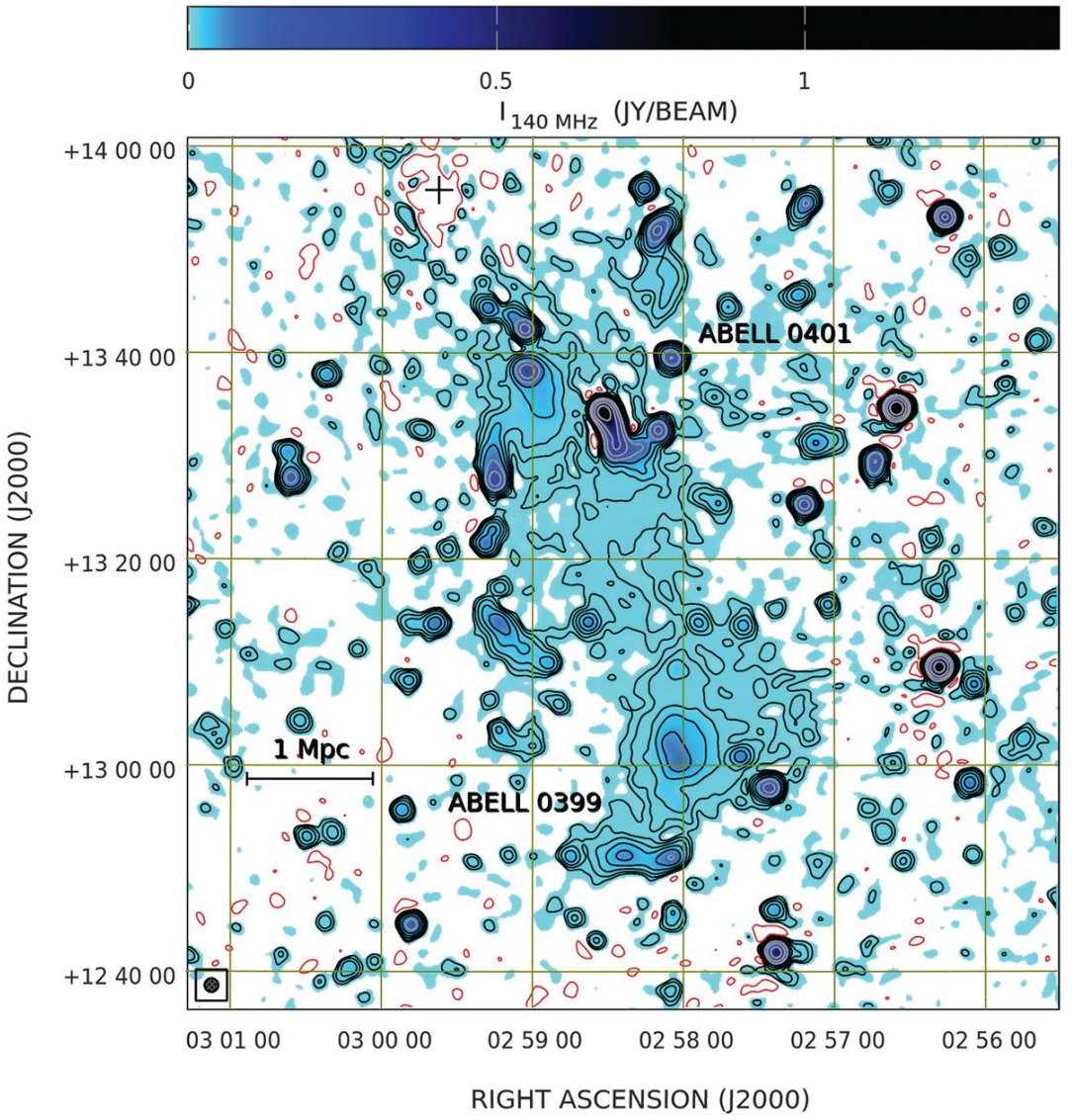
Discovery of a radio bridge

- Govoni et al. 2019 found non-thermal inter-cluster emission from A399-A401 cluster pair using LOFAR data

- Shock-driven model proposed to explain such emission
(~ 70% polarized)



A pre-merger system (?)

- X-ray (Fujita08,Bonjean18) → BCG position and Z
- Optical (Bonjean18) → galaxies and BCG position
- Radio (Murgia10) → t_{diff}