



## NOVEMBER 2018

<b>S</b>	<b>M</b>	<b>T</b>	<b>W</b>	<b>Th</b>	<b>F</b>	<b>Sa</b>
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
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25	26	27	28	29	30	

### MACSJ 1149.5+2223

Galaxy clusters are enormous collections of hundreds or even thousands of galaxies and vast reservoirs of hot gas embedded in massive clouds of dark matter. One galaxy cluster project, called the “Frontier Fields”, has focused long observations from very powerful telescopes, including Chandra, on various galaxy clusters to learn more about them. One such galaxy, MACSJ 1149.5+2223, features X-ray data from Chandra (blue), radio data from the VLA (pink), and optical data from Hubble (red, green, blue).