

Complete CO Imaging of the Central Molecular Zone

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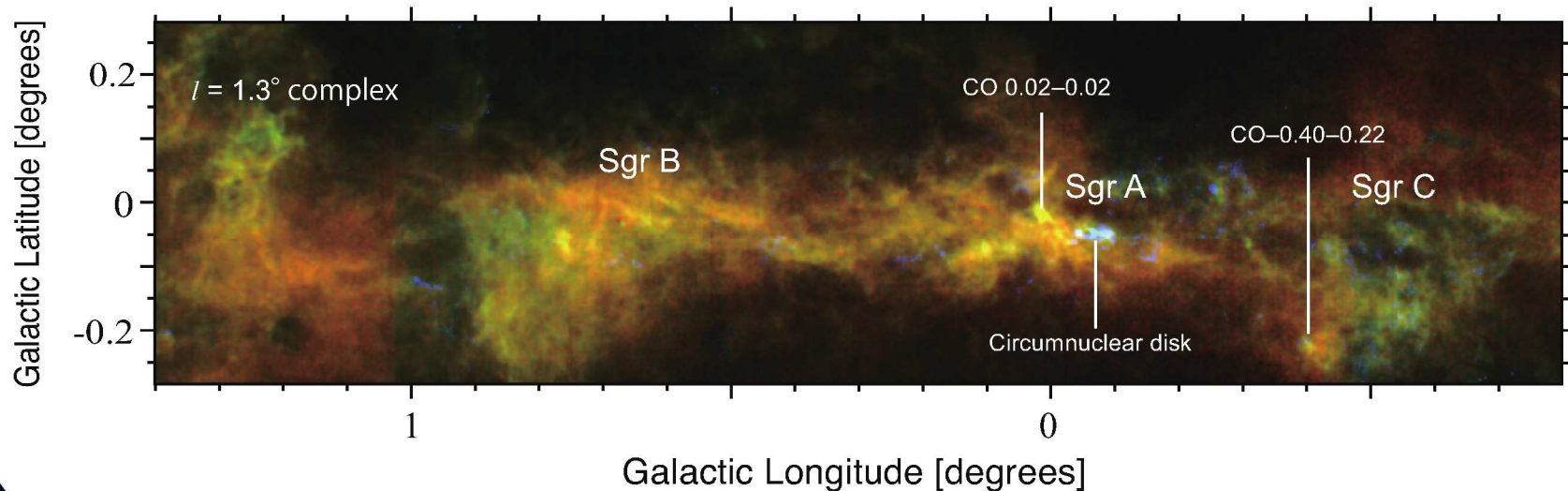
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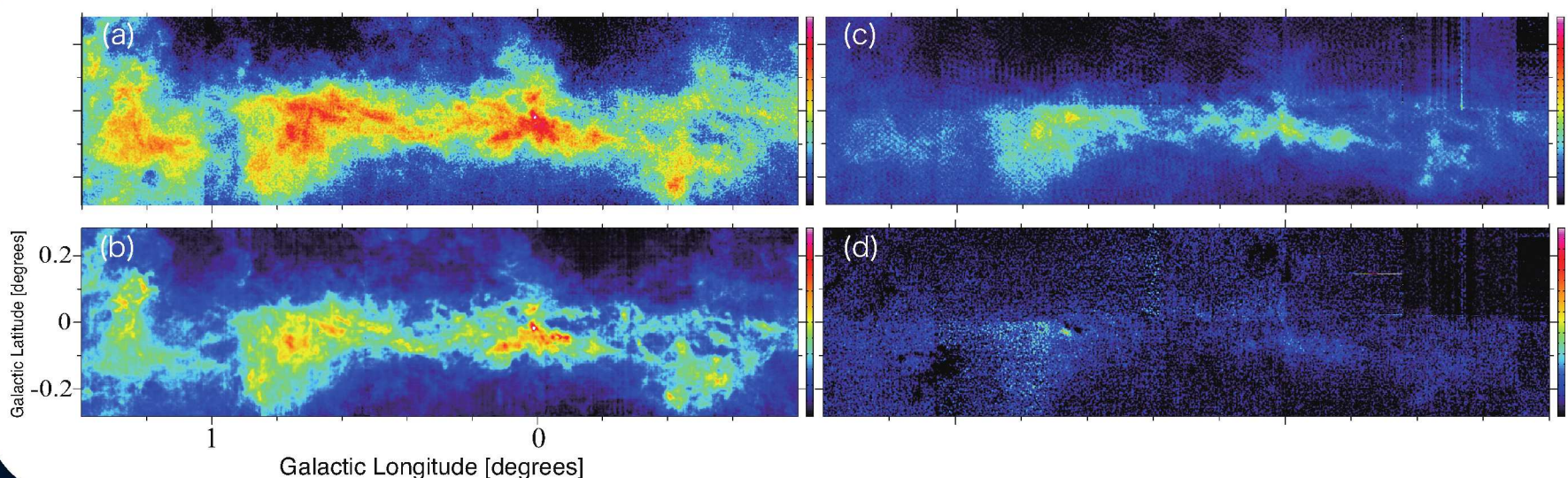
Nobeyama Radio Observatory 45 m Telescope
Date: 2011 1/19-1/29 (50h)
2016 1/26-2/15, 3/9-3/23 (182h)
Line: $^{12}\text{CO}(J=1-0)$ ($\nu=115$ GHz)
 $^{13}\text{CO}(J=1-0)$ ($\nu=110$ GHz)
 $\text{C}^{18}\text{O}(J=1-0)$ ($\nu=109$ GHz)
Receiver: SAM45



James Clerk Maxwell Telescope (JCMT)
Date: 2013 7/25, 7/26, 7/31, 9/28
2014 7/31
2015 5/30, 6/1 (14h)
Line: $^{12}\text{CO}(J=3-2)$ ($\nu=345$ GHz)
Receiver: HARP



Maps of the Red: $^{12}\text{CO}(J=1-0)$, Green: $^{12}\text{CO}(J=3-2)$, Blue: $^{12}\text{CO}(J=3-2)/^{12}\text{CO}(J=1-0)$
integrated over the velocity range $V_{\text{LSR}} = -200$ to 200 km s^{-1}



Maps of the (a): $^{12}\text{CO}(J=1-0)$, (b): $^{12}\text{CO}(J=3-2)$, (c): $^{13}\text{CO}(J=1-0)$ and (d): $\text{C}^{18}\text{O}(J=1-0)$ line emission
integrated over the velocity range $V_{\text{LSR}} = -200$ to 200 km s^{-1}