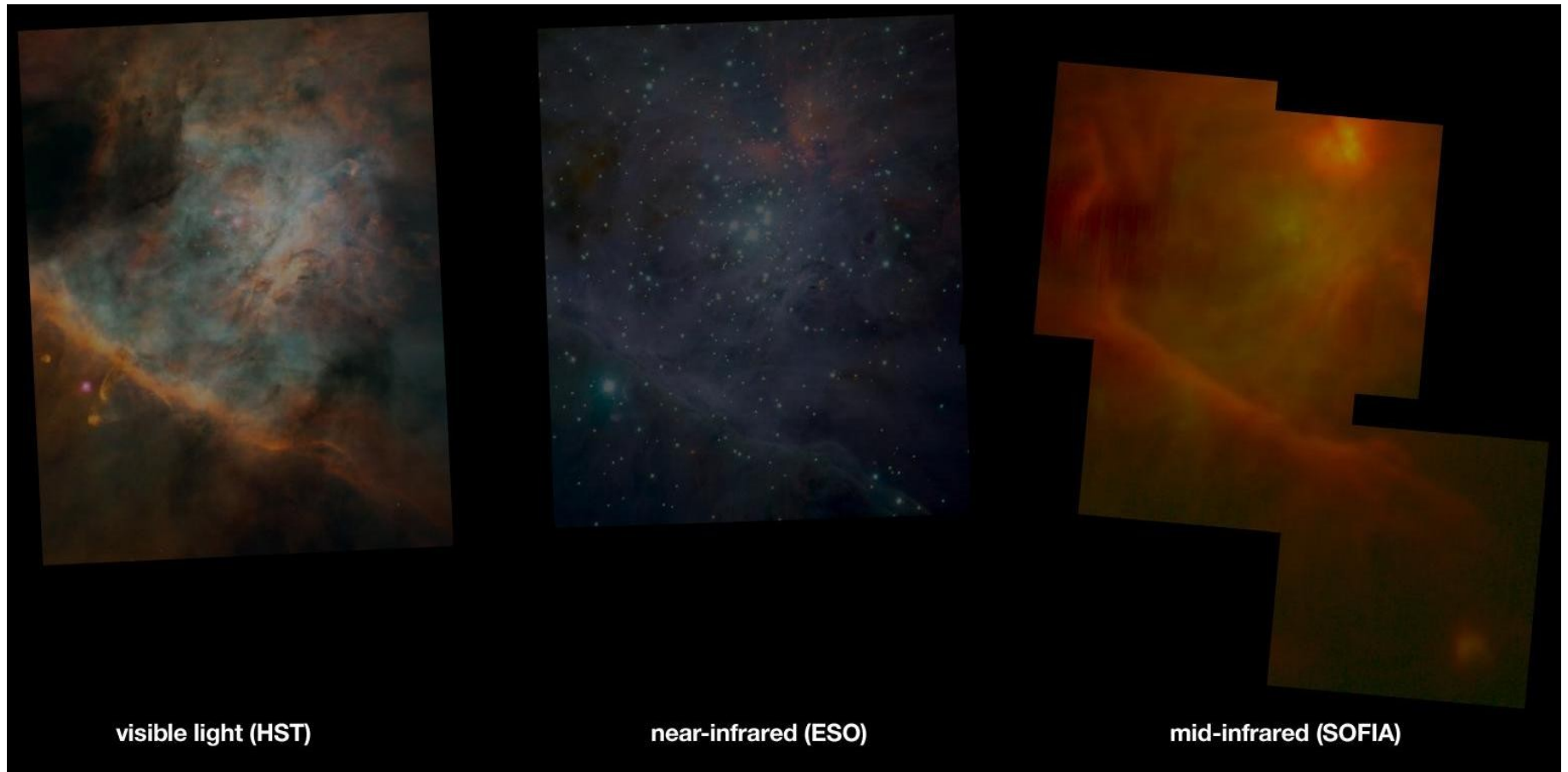
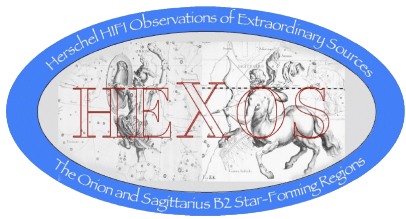


Orion Bar maps

Z. Makai, V. Ossenkopf



Toledo, May 28, 2011



Overview

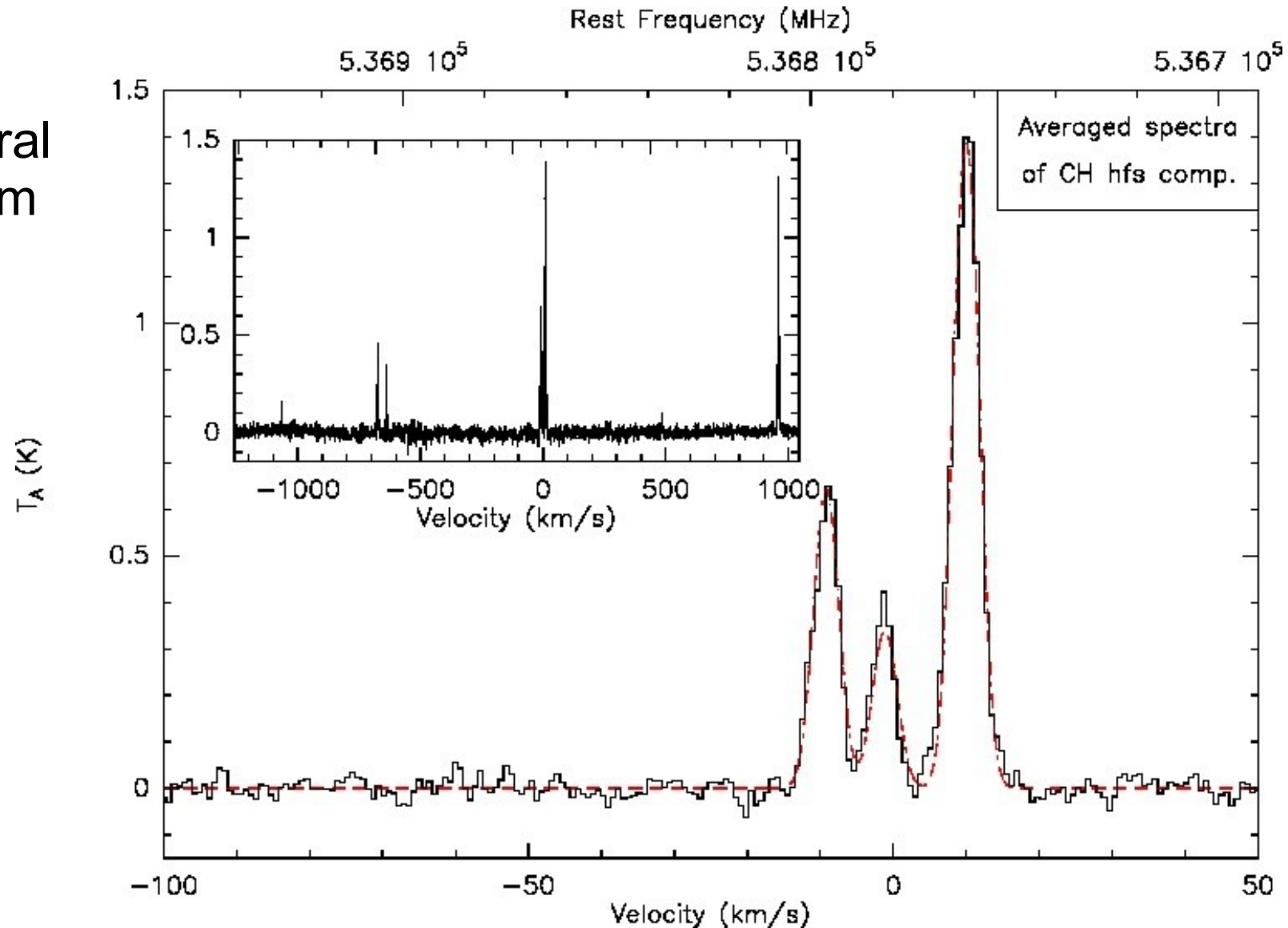
Observations:

- 1342218528 - 530.928 GHz - CH, HCO⁺, CS, C₂H, H₂CO, 3 u
- 1342216355 - 542.995 GHz - CH, HCO⁺, CS, C¹⁸O, ¹³CO
- 1342215922 - 564.708 GHz - o-H₂O, NH₃, 3 u-lines
- 1342218216 - 977.54 GHz - OH⁺
- 1342218217 - 980.191 GHz - p-H₂O, C¹⁸O, **no NH**
- 1342215971 - 1095.834 GHz - ¹³CO, **no H₂¹⁸O**
- 1342215970 - 1107.475 GHz - p-H₂O, ¹³CO
- 1342217736 - 1146.716 GHz - CO
- 1342218908 - 1654.060 GHz - **no CH**
- 1312219807 - 1667.004 GHz - o-H₂O
- 1342218424 - 1713.866 GHz - o-H₂O
- 1342218524 - 1838.434 GHz - CO

Example spectra

530 GHz:

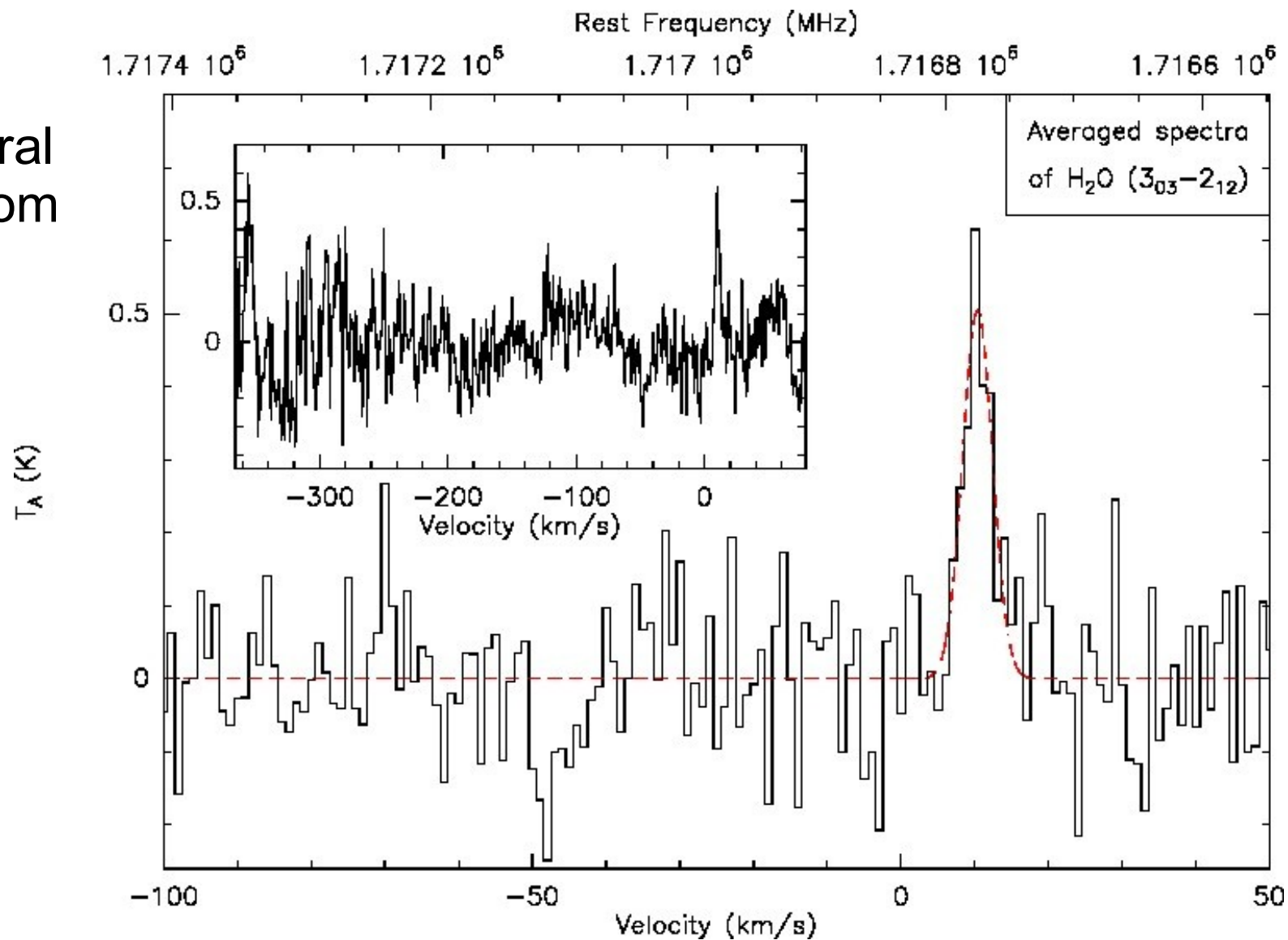
- Map integral
- CH in zoom

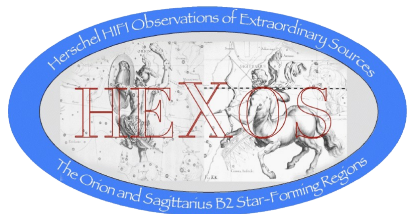


Example spectra

1714 GHz:

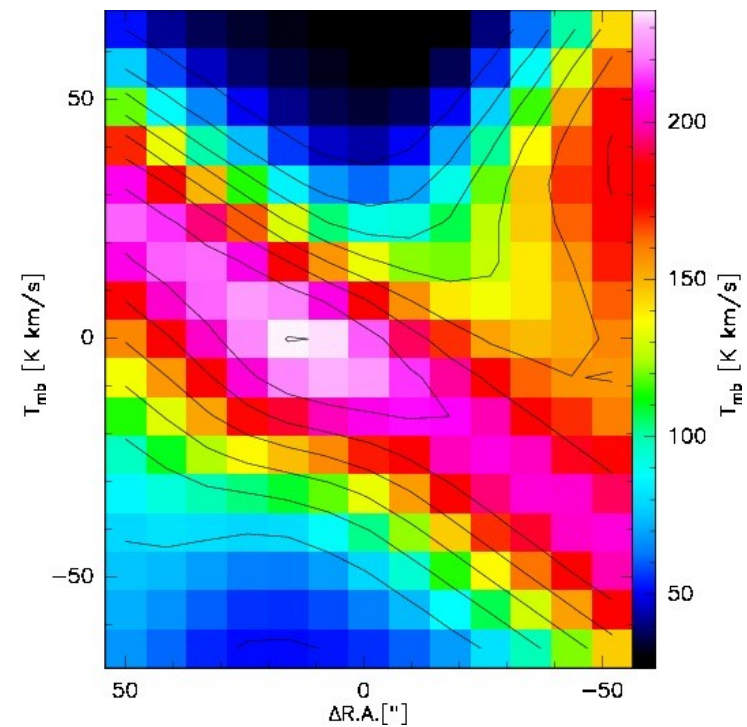
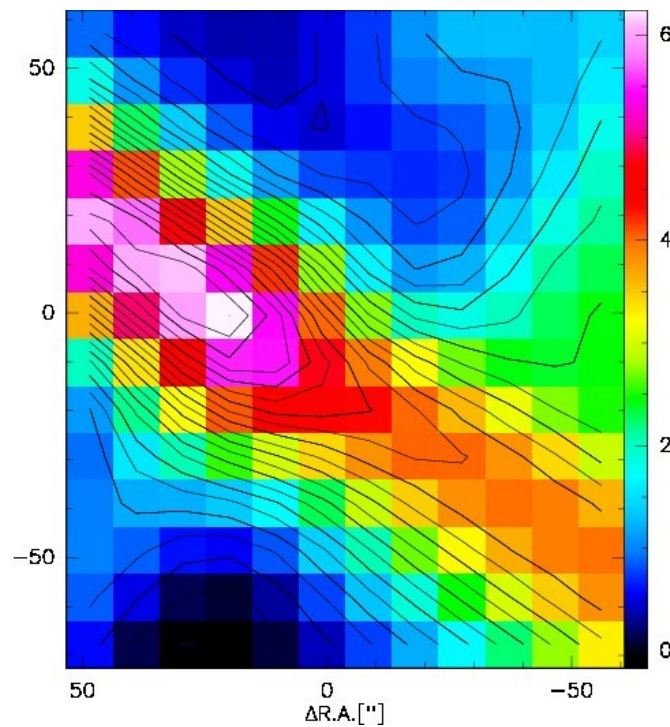
- Map integral
- H₂O in zoom





Example maps

$\Delta\text{Dec} ["]$



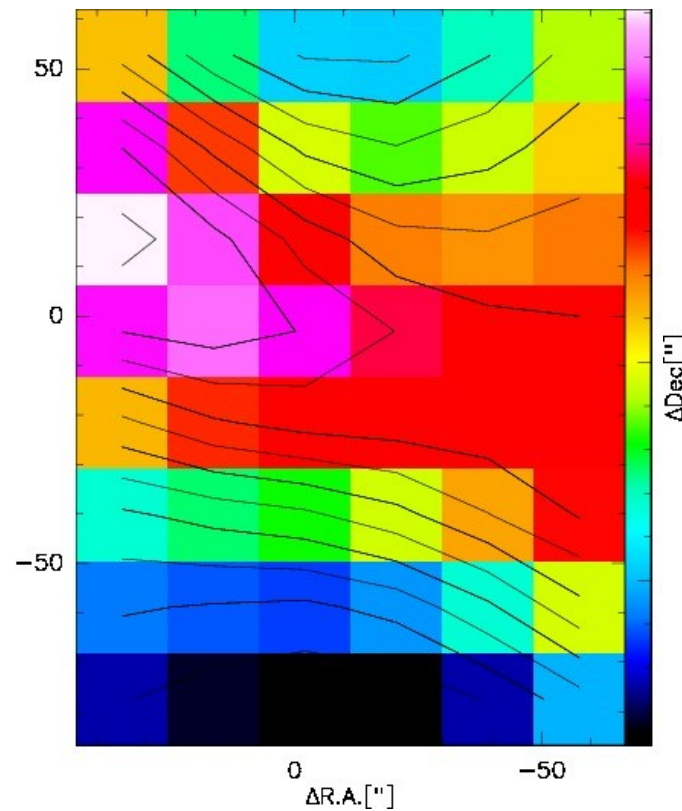
C^{18}O

CO

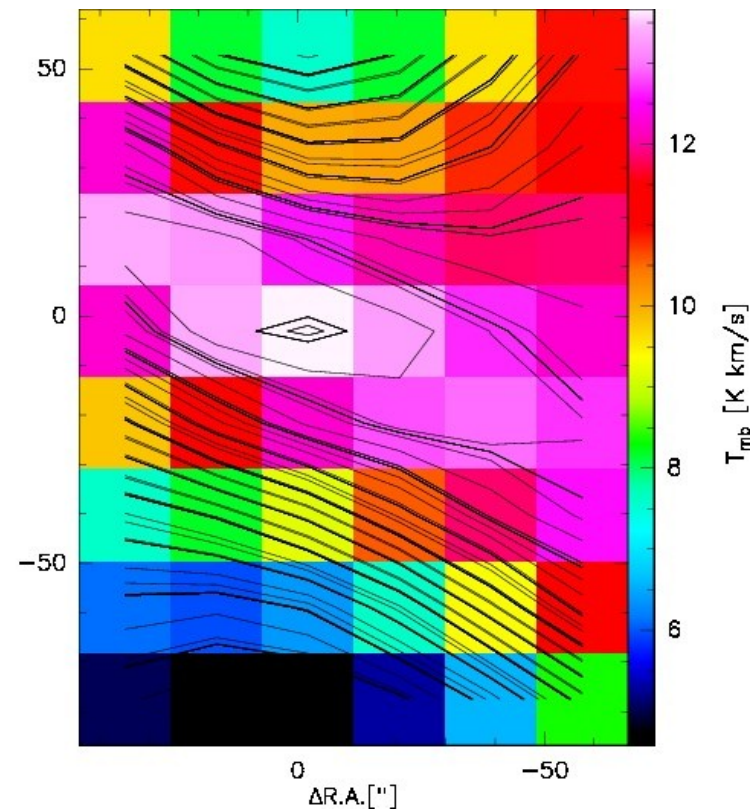
C_2H

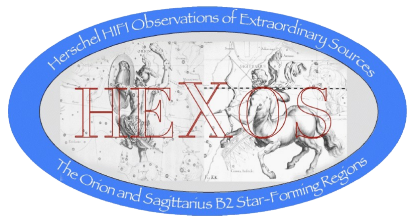
CH

$\Delta\text{Dec} ["]$

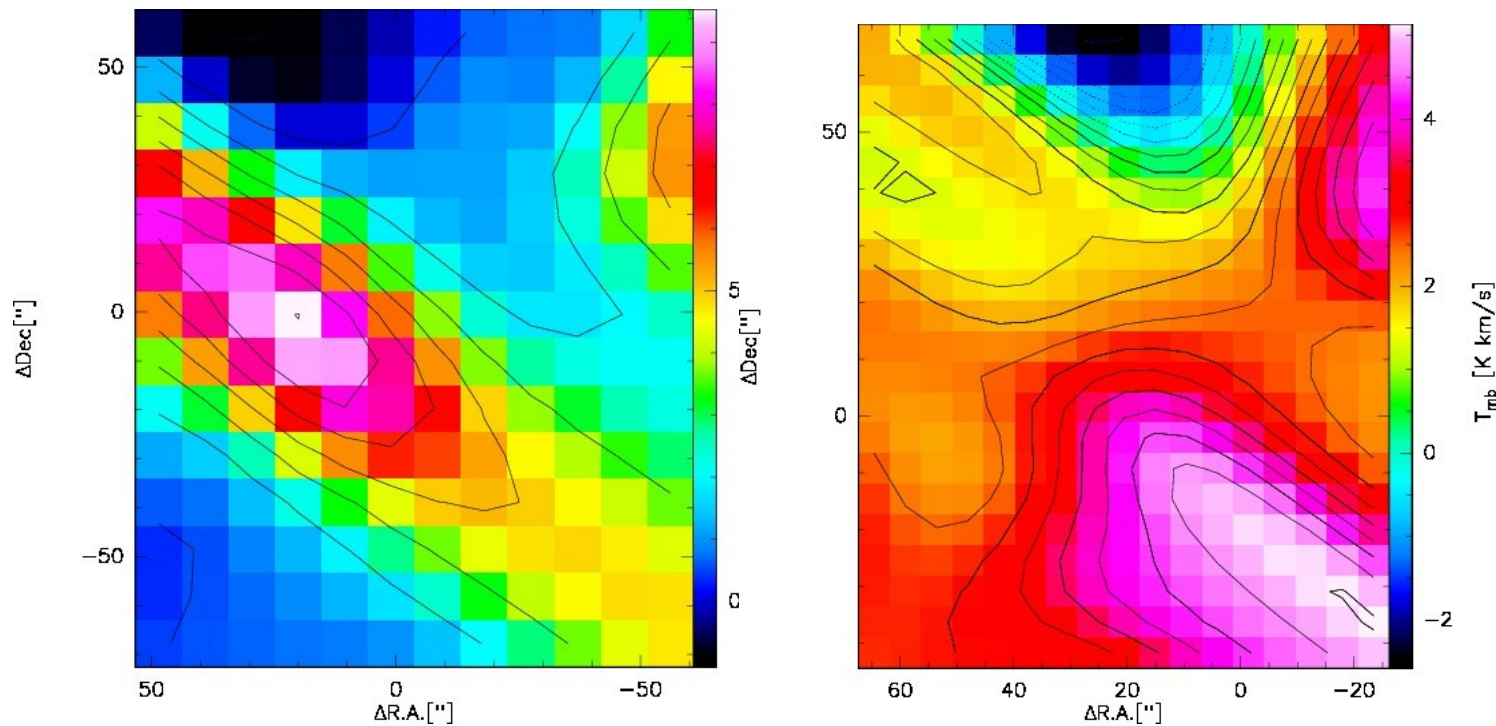
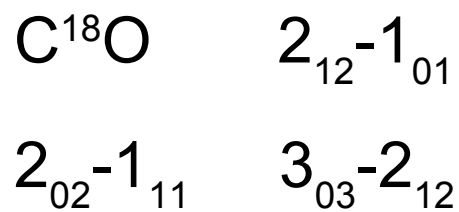
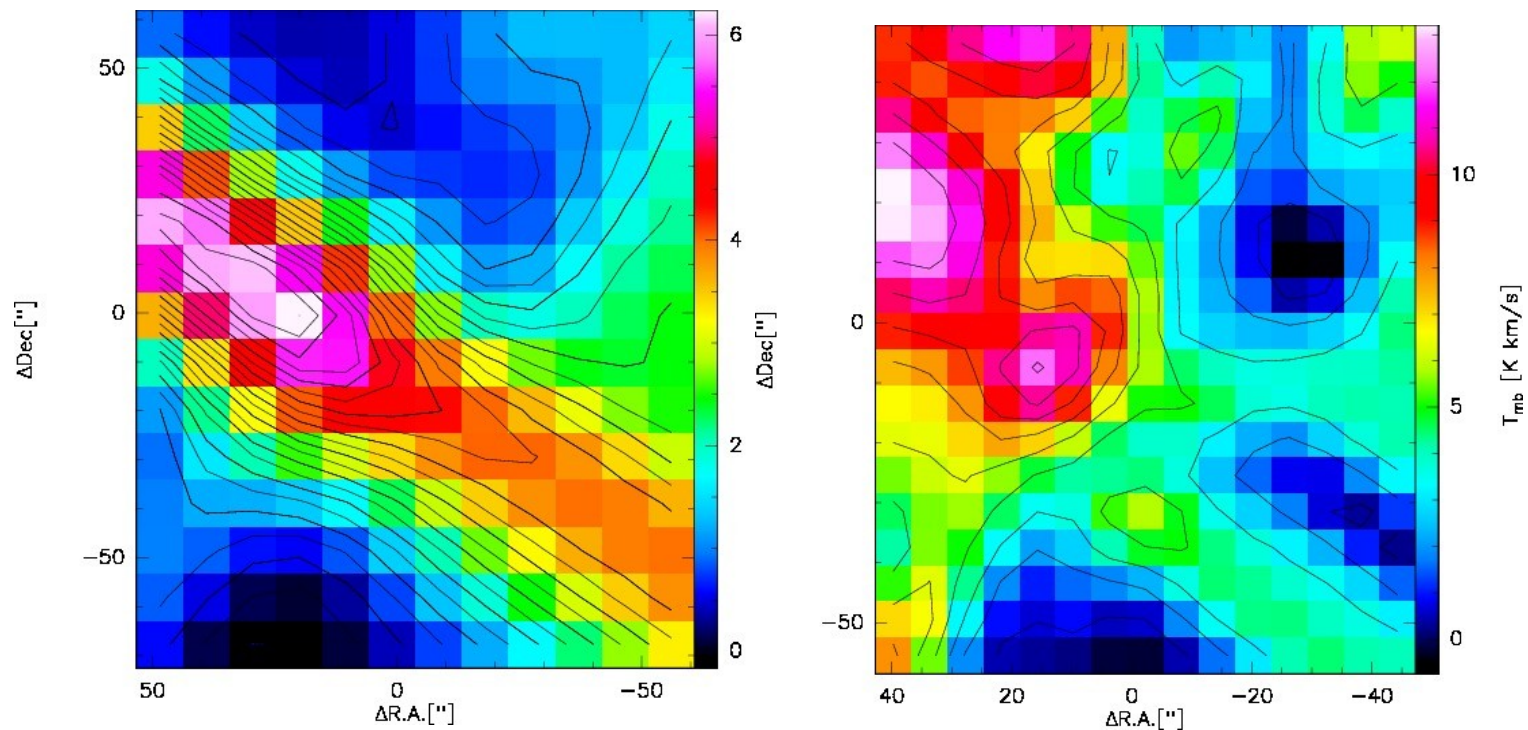


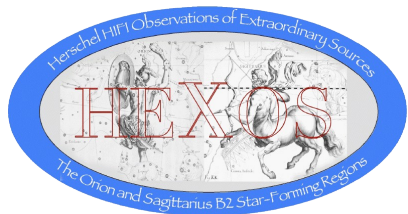
$\Delta\text{Dec} ["]$





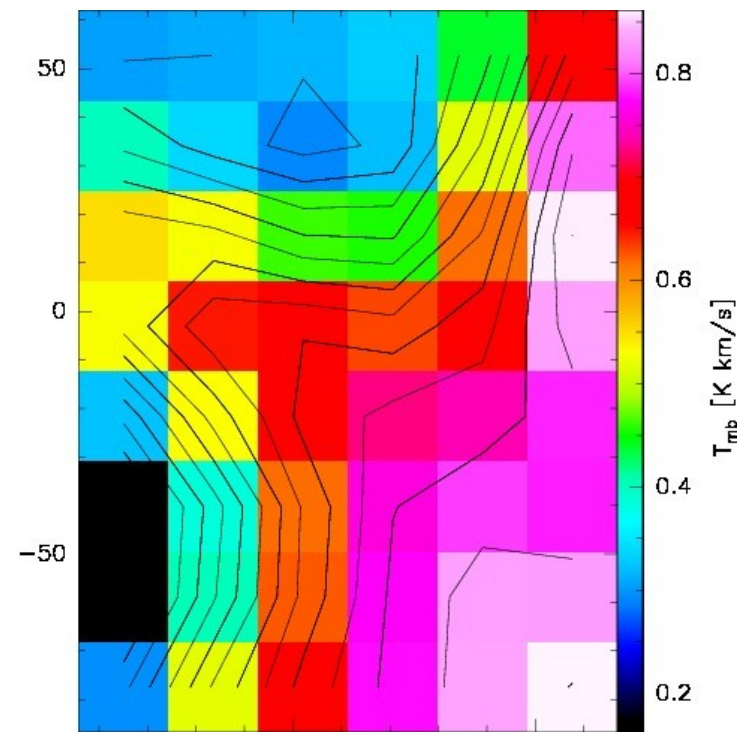
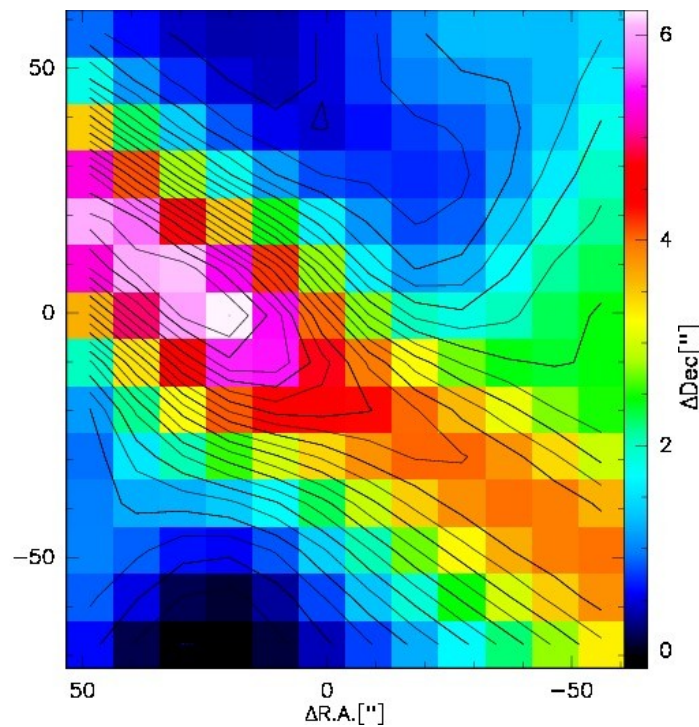
Water maps





Dubious maps

$\Delta\text{Dec} ["]$



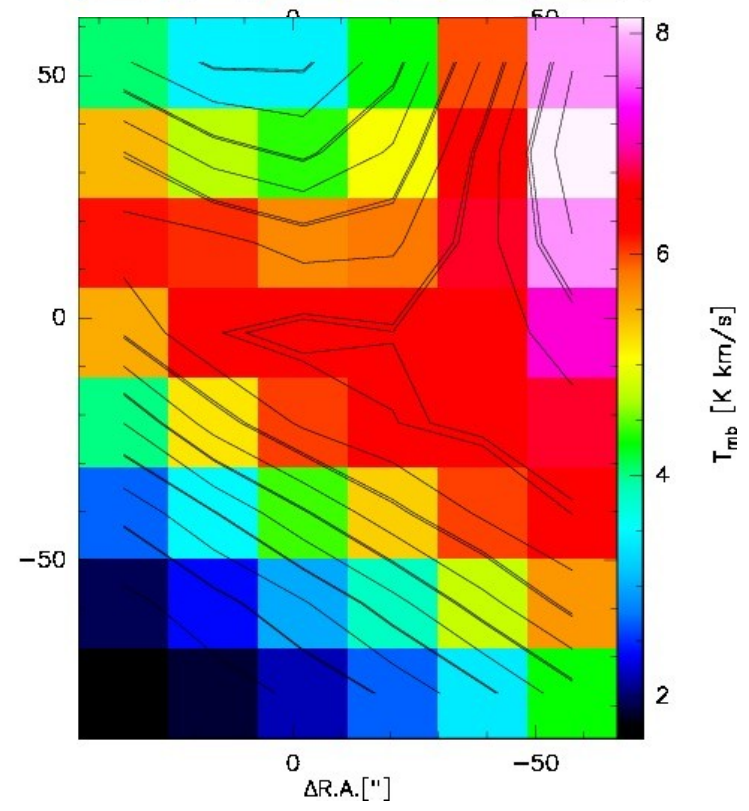
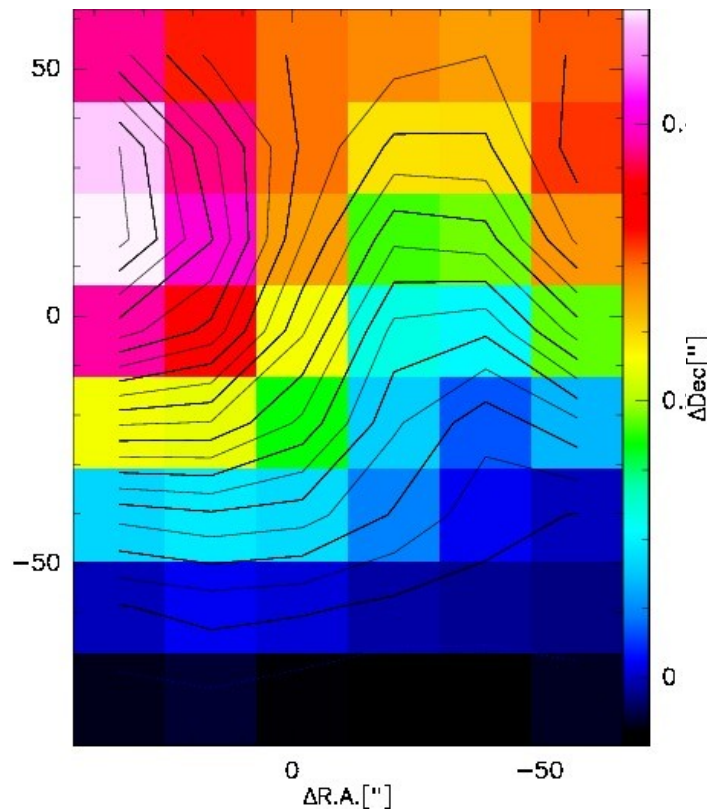
C^{18}O

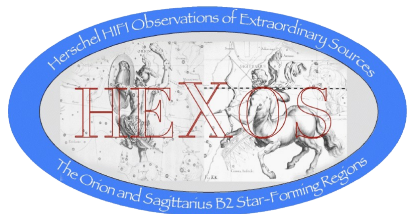
CS

H_2CO

HCO^+

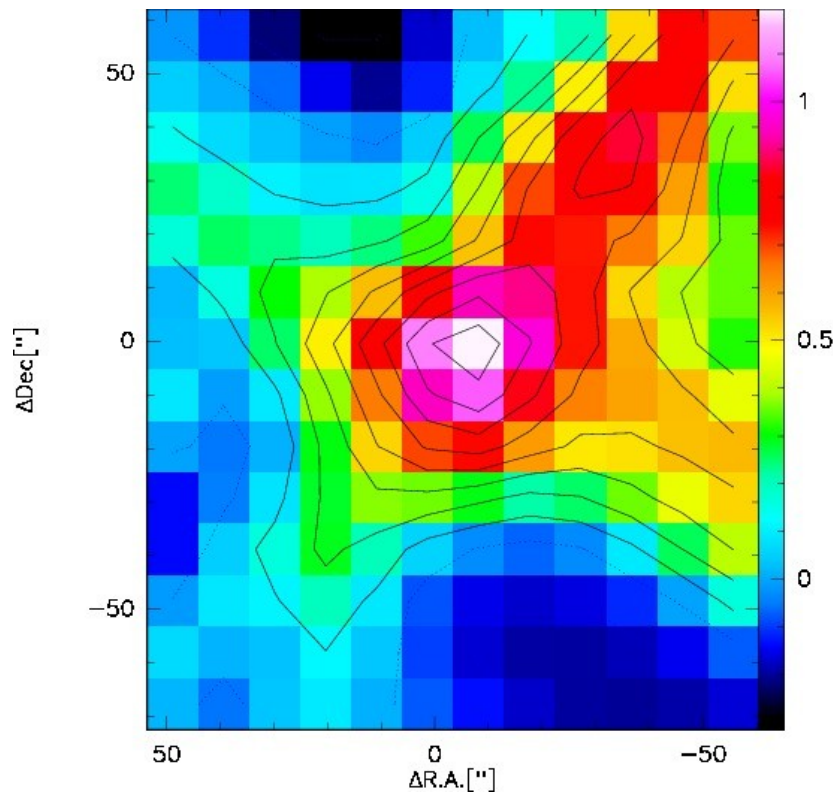
$\Delta\text{Dec} ["]$



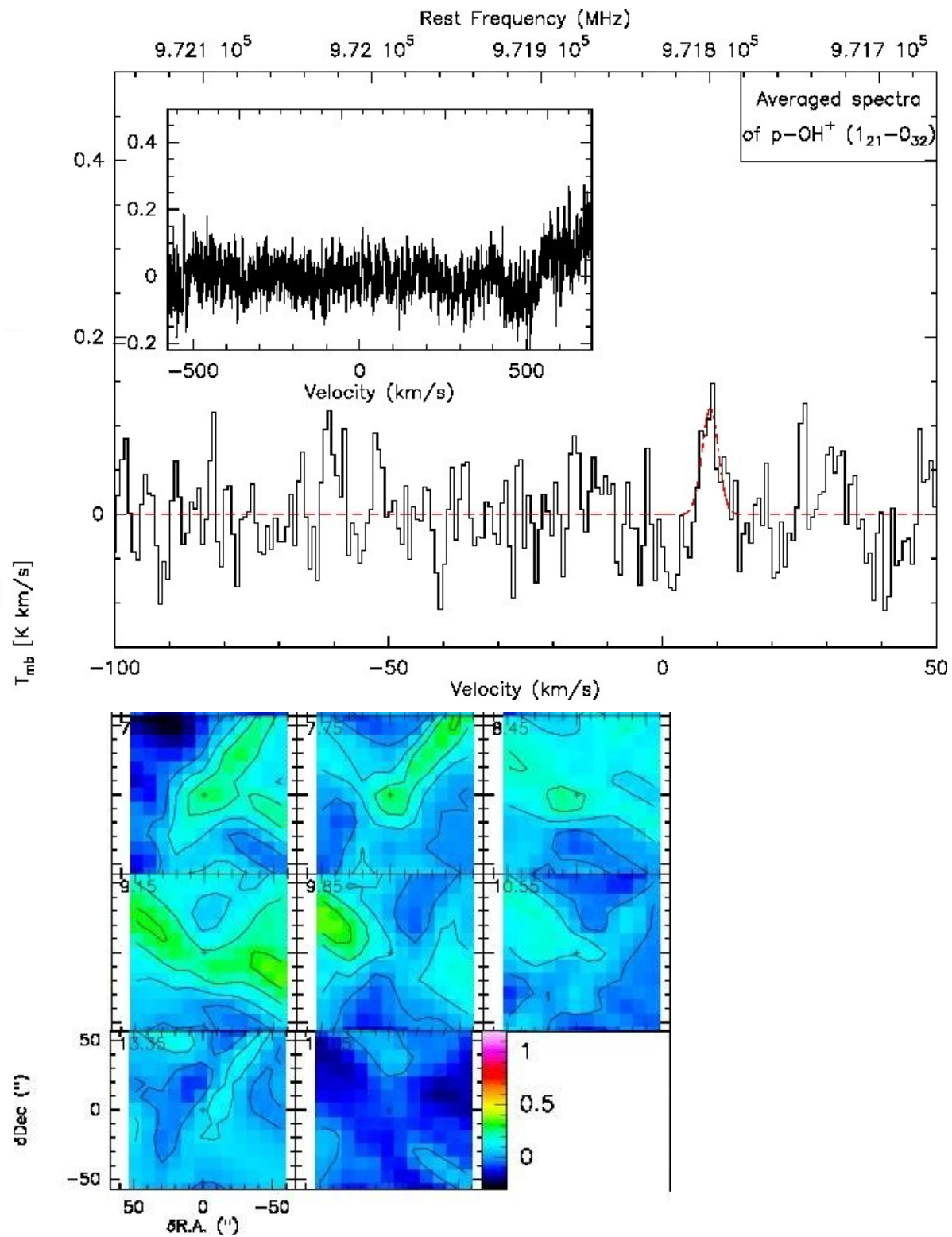


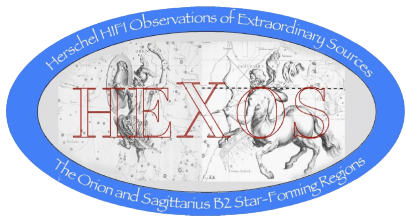
OH⁺

Detection questionable:



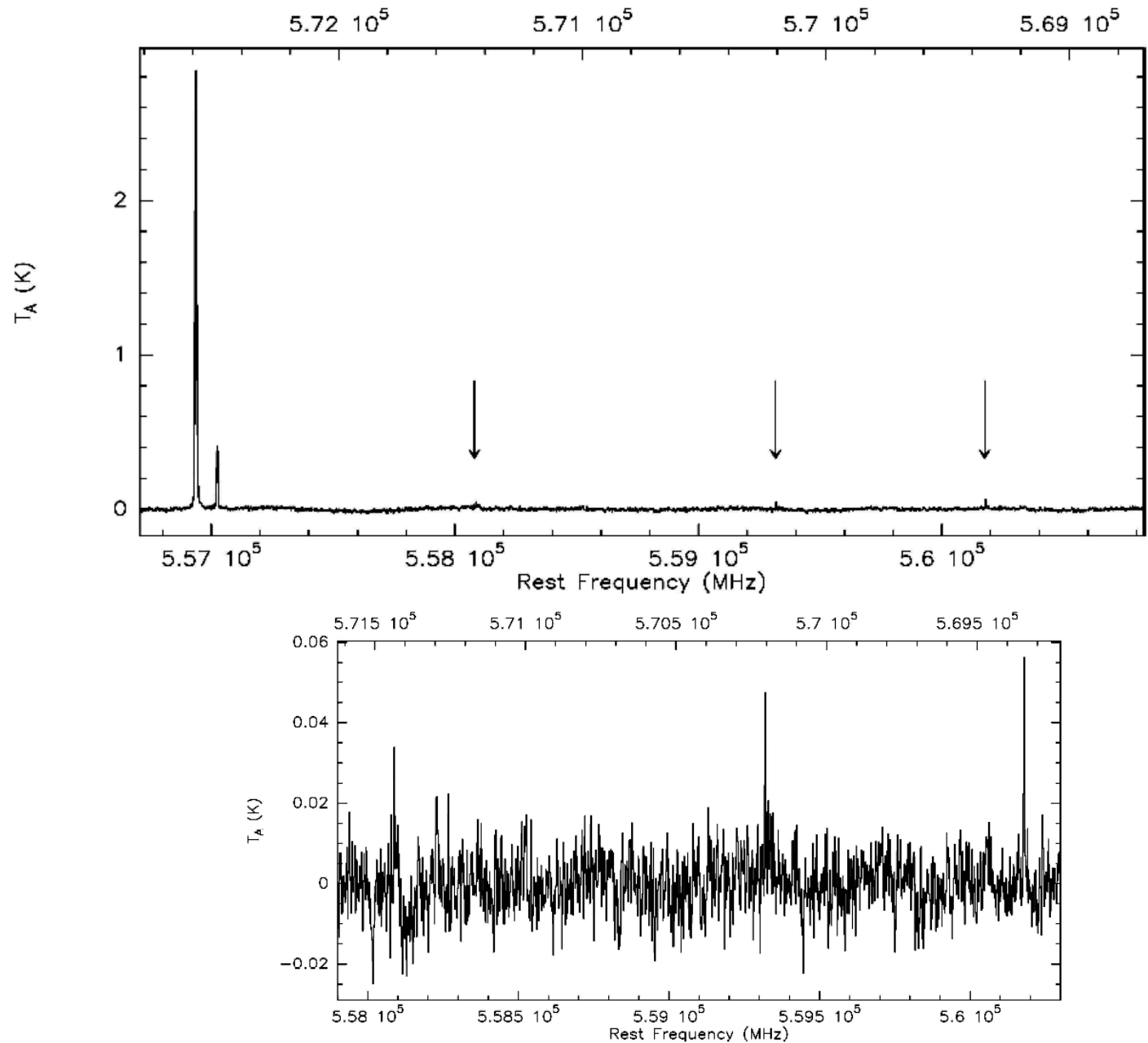
Channel maps suggests real detection at some velocities





Our zoo of lines

- At least 6 u lines detected



Our zoo of lines

