## Science cases for JCMT & SMA synergies

Science case 1: short spacings & high angular resolution

 $D_{JCMT} = 2.5 x D_{SMA}$ , ideal for joint mapping



Science case 2: connecting magnetic fields from the cloud/clump (~1pc) to core (~0.01 - 0.1pc) scales



Zhang et al. (2014)

Science case 3: surveys of large samples / sky coverage with the JCMT (SCUBA2, HARP, ...) guide dedicated case studies with the SMA

**Galactic star formation:** large samples or the whole complex with the JCMT; detailed physics within dense clumps or cores with the SMA, ...

**Nearby galaxies:** mapping the whole galaxy and ping down into GMCs and clouds, ...

• • • • • •