Science cases for JCMT & SMA synergies

Science case 1: short spacings & high angular resolution

\[ D_{\text{JCMT}} = 2.5 \times D_{\text{SMA}} \], ideal for joint mapping

Qiu et al. (2011)
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, ...

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