86 GHz SiO maser survey and kinematics in the Galactic Bulge

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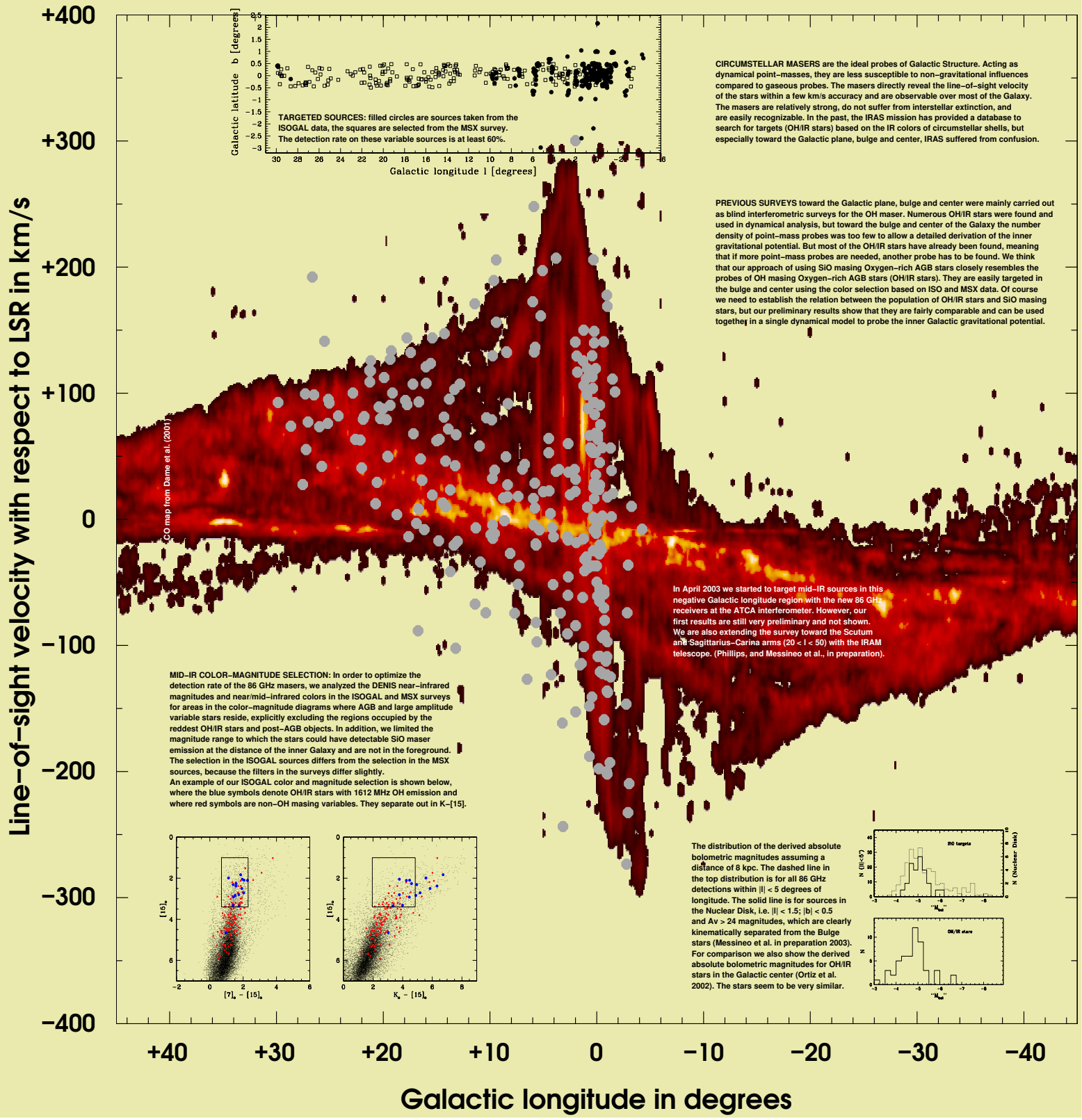
SUMMARY: We have searched color–selected AGB stars from the ISOGAL and MSX mid–IR surveys in the Galactic bulge and Plane for 86 GHz (J=2–1, v=1) SiO maser emission with the 30–m IRAM telescope. The SiO masers instantaneously reveal the line–of–sight velocity of the stars, which in combination with the less numerous and slightly different population of OH/IR stars, can be used as kinematic probes of the Inner–Galactic gravitational potential. The 86 GHz SiO maser results of the survey are described in Messineo et al. (2002), Astronomy & Astrophysics Volume 393, p 115–128; the data is available electronically.
This poster shows the main result of the survey: the longitude–velocity diagram of our detections in the longitude range of –4 to 30 degrees overlaid on the CO data of Dame et al. (2001, ApJ Vol. 574, p 792).