



VLBA Astrometry of Spacecraft Phoenix Mars Lander Experiment



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- New capability: scheduling & correlation were enhanced to track moving, near-field objects
- Hardware & software DiFX corr. supported
- Demonstrated and debugged in Phoenix expt.
- Current precision: 20–50 μas . <5 μas possible, *if systematics understood & removed.*
- In use now for:
 - Imaging radar off near-Earth asteroids
(Busch et al. 2008, DPS meeting #40. BAAS, 40, 437)
 - Improvement of planetary ephemeris: Cassini @ Saturn
(Jones et al. 2009, AAS meeting #213, BAAS, 41, 189)

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Plan: During approach & landing, phase reference
Phoenix to ICRF, and also to 2 Mars Orbiters. On the
last 3 days, all 3 spacecraft in the antenna beam.

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