

SNAP SAT

supernova acceleration probe
baseline science goals

<i>Target Parameter</i>	<i>Constraint</i>	<i>Target Statistical Uncertainty</i>
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Determine mass density, vacuum energy density, and curvature

mass/vacuum energy Ω_M, Ω_Λ	in flat universe $\Omega_k=0$	0.01
curvature Ω_k	(indep. of CMB)	0.05
mass density Ω_M	unconstrained	0.02
vacuum energy Ω_Λ	"	0.05

Properties of Dark Energy

Eq. of State w vs Ω_M	in flat universe	
Eq. of State w	with $\Omega_M \approx 0.3$	0.05
Study time-varying $w(t)$ by studying $d_L(z)$ with $\Delta z \approx 0.03$ bins.		

A definitive supernova cosmology measurement.