

ORCA meeting

Lodewijk Nauta

Nikhef

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Asimov fit

Parameter	Treatment	Prior	Fitted value	True value
θ_{12} [deg]	Fixed	-	-	
θ_{13} [deg]	Fitted w/ prior	0.15 deg	8.40 +-0.15	8.40
θ_{23} [deg]	Free	-	40.8 +- 7.9	40.7
Dm_{21sq} [10^{-5} eV ²]	Fixed	-	-	
Dm_{31sq} [10^{-3} eV ²]	Free	-	2.56 +-0.16	2.56
D_{cp} [π]	Free	-	0.5 +- 2	1.38
Energy tilt	Free	-	-1.0E-4 +-0.095	0
$\cos\theta$ tilt	Free	-	-6.4E-4 +-0.37	0
e/ae ratio	Fitted w/ prior	10%	-1.6E-3 +-9.9E-2	0
μ/μ ratio	Fitted w/ prior	10%	-4.6E-3 +-9.9E-2	0
e/ μ ratio	Fitted w/ prior	5%	1.2E-5 +-4.9E-2	0
NC norm.	Fitted w/ prior	10%	1.001 +- 0.099	1
tau norm.	Free	-	1.0 +- 1.3	1
Energy scale	Free	-	-0.034 +- 0.023	0
Overall norm.	Extended LLH	-	282.5	282.7

Fitter start position is randomized

Selected runs: 133 days

D_{cp} : we have no sensitivity

Large statistics fit

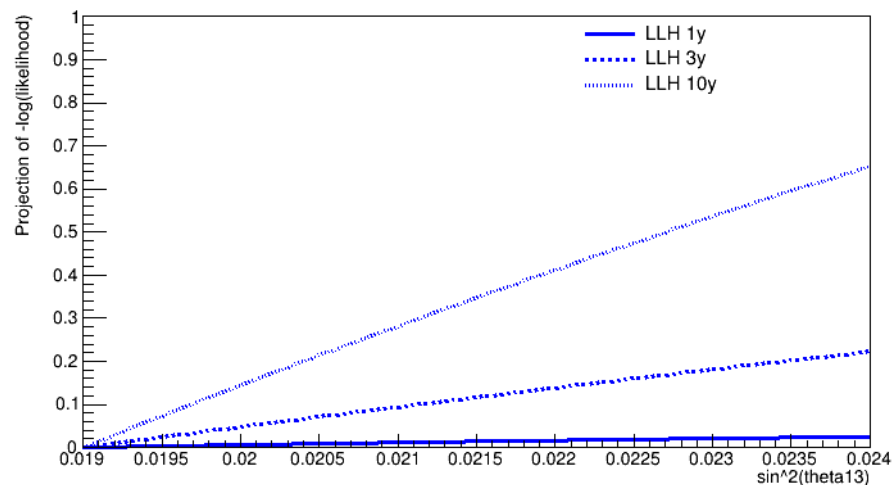
Scanned LLH for
3 data sets:

1y of ORCA4 data
3y of ORCA4 data
10y of ORCA4 data

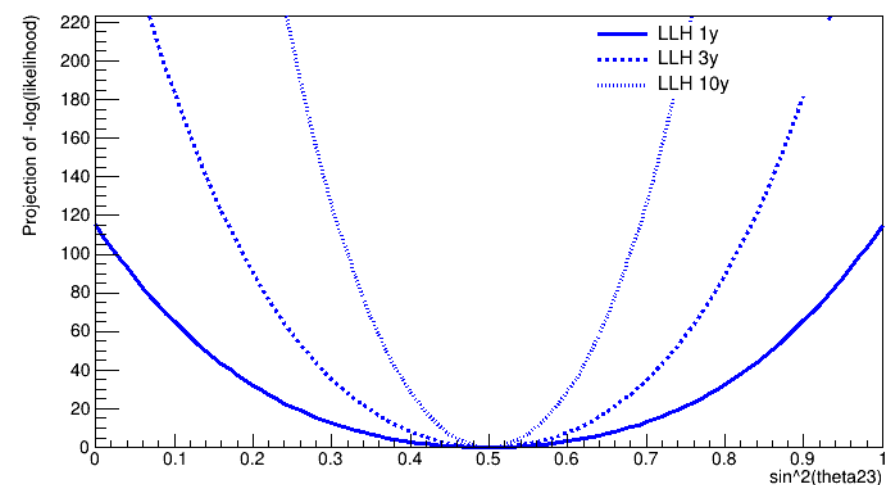
Sin²θ₁₃ has gaussian prior
0.0215±8.3E-5

Dm₃₁² final values are
consistent within uncertainty

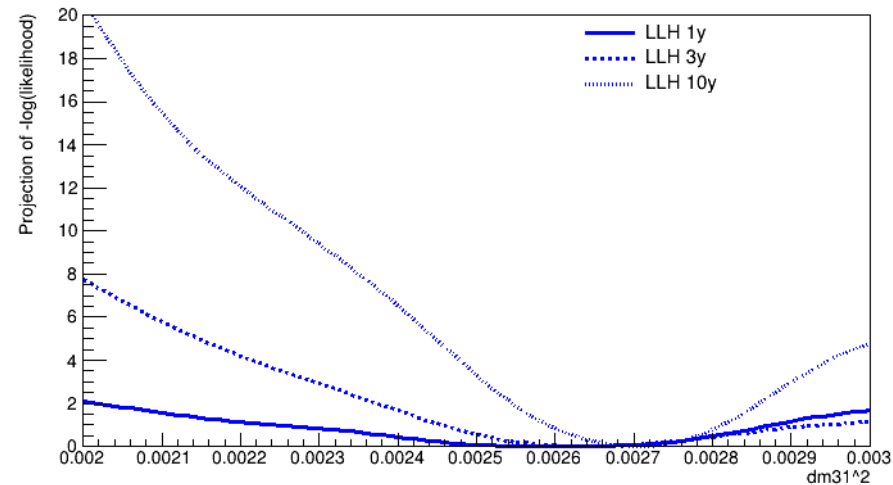
A RooPlot of "sin²(theta13)"



A RooPlot of "sin²(theta23)"



A RooPlot of "dm31^2"



A RooPlot of "delta-cp"

