

On the flavor composition of the high-energy neutrinos in IceCube

based on

O. Mena, SPR and A.C. Vincent, PRL 113:091103, 2014 (arXiv:1404.0017)

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Present and Future Neutrino Physics
Santa Barbara, October 2, 2014

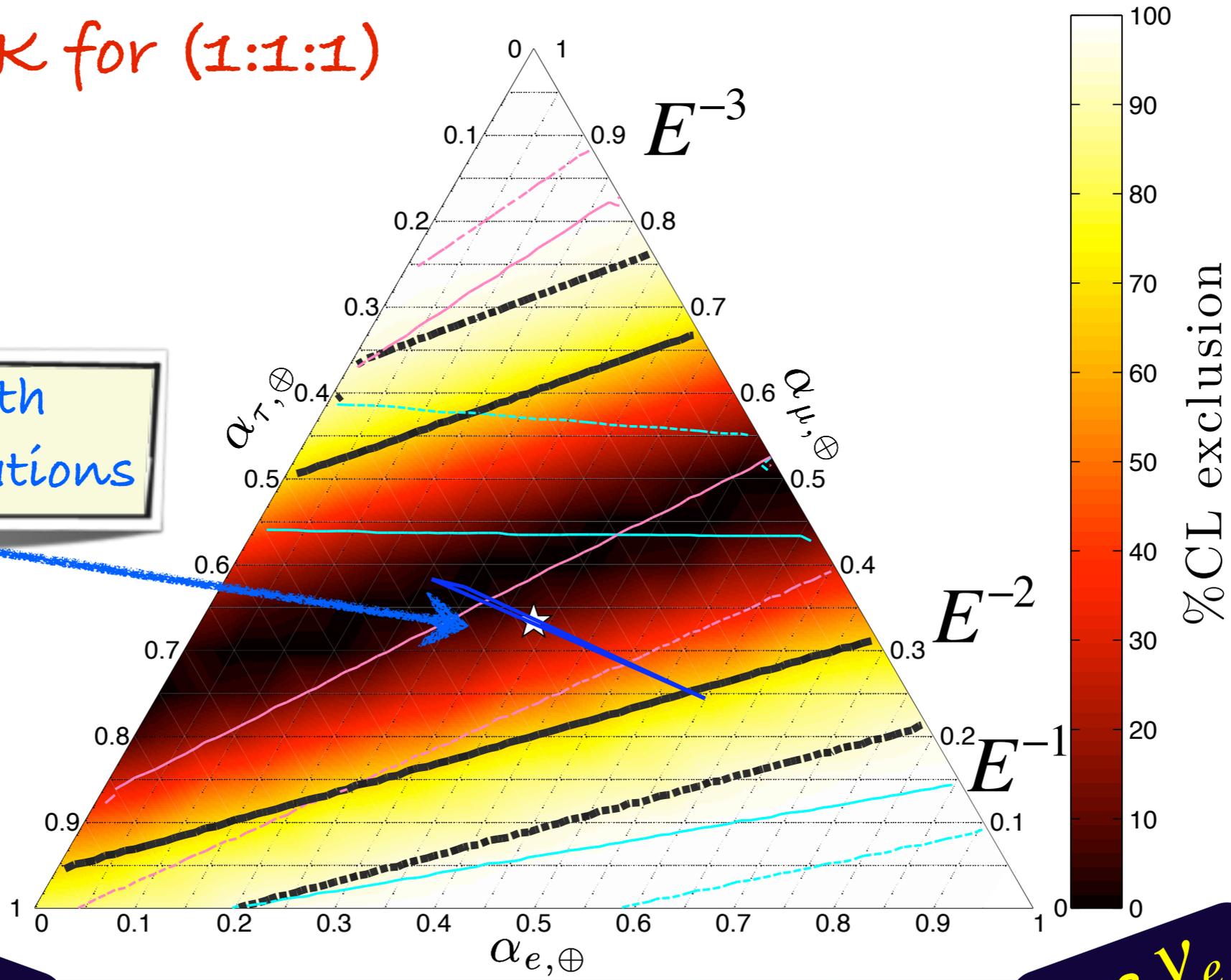


NO BACKGROUND

Pure V_μ

OK for (1:1:1)

Flavor ratios with averaged oscillations



Pure V_τ

Color code for E^{-2}

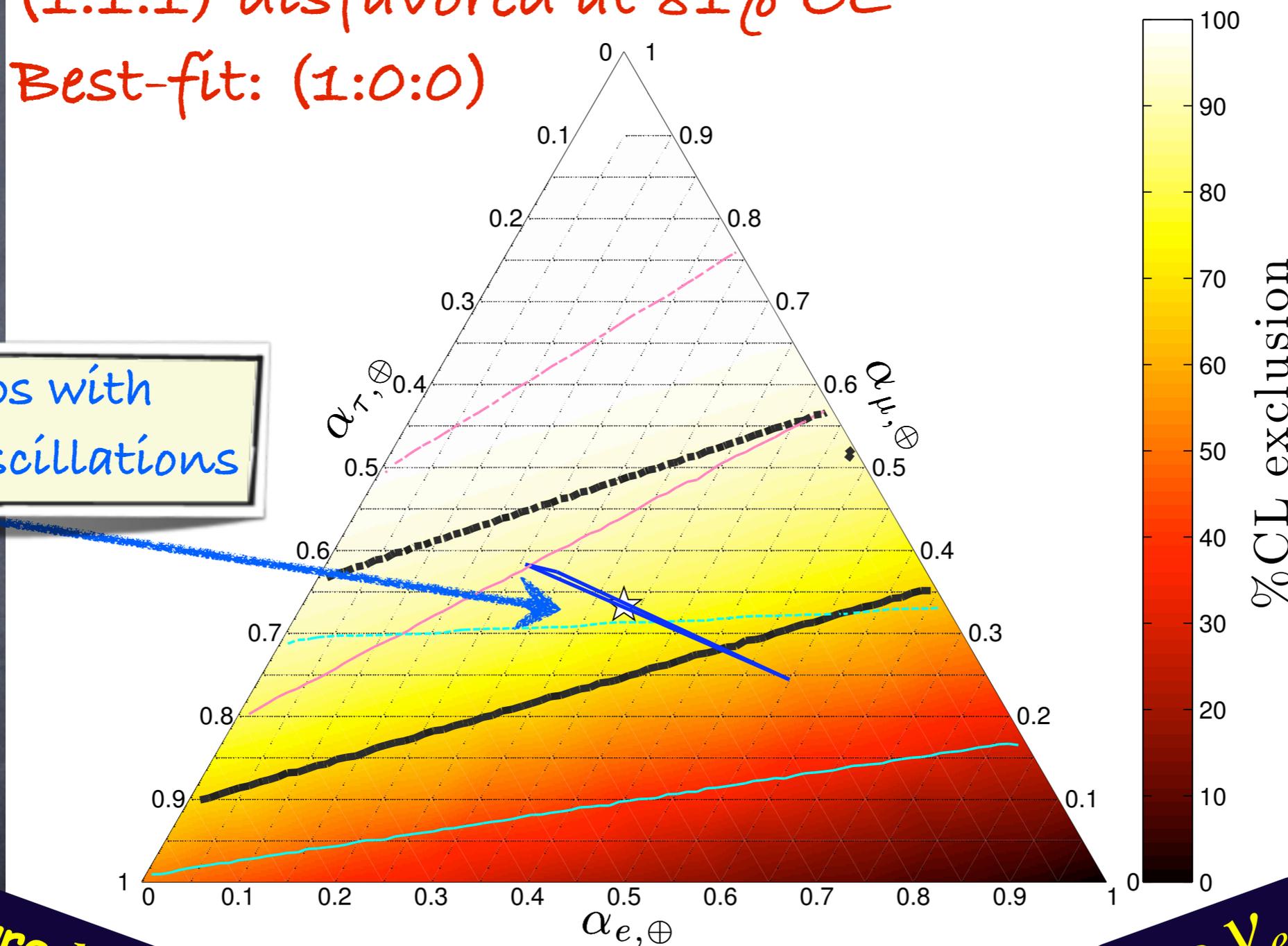
Pure V_e

2-YEAR RESULTS

Pure V_μ

(1:1:1) disfavored at 81% CL
Best-fit: (1:0:0)

Flavor ratios with averaged oscillations



Pure V_τ

Pure V_e

O. Mena, SPR and A. C. Vincent, Phys. Rev. Lett. 113:091103, 2014

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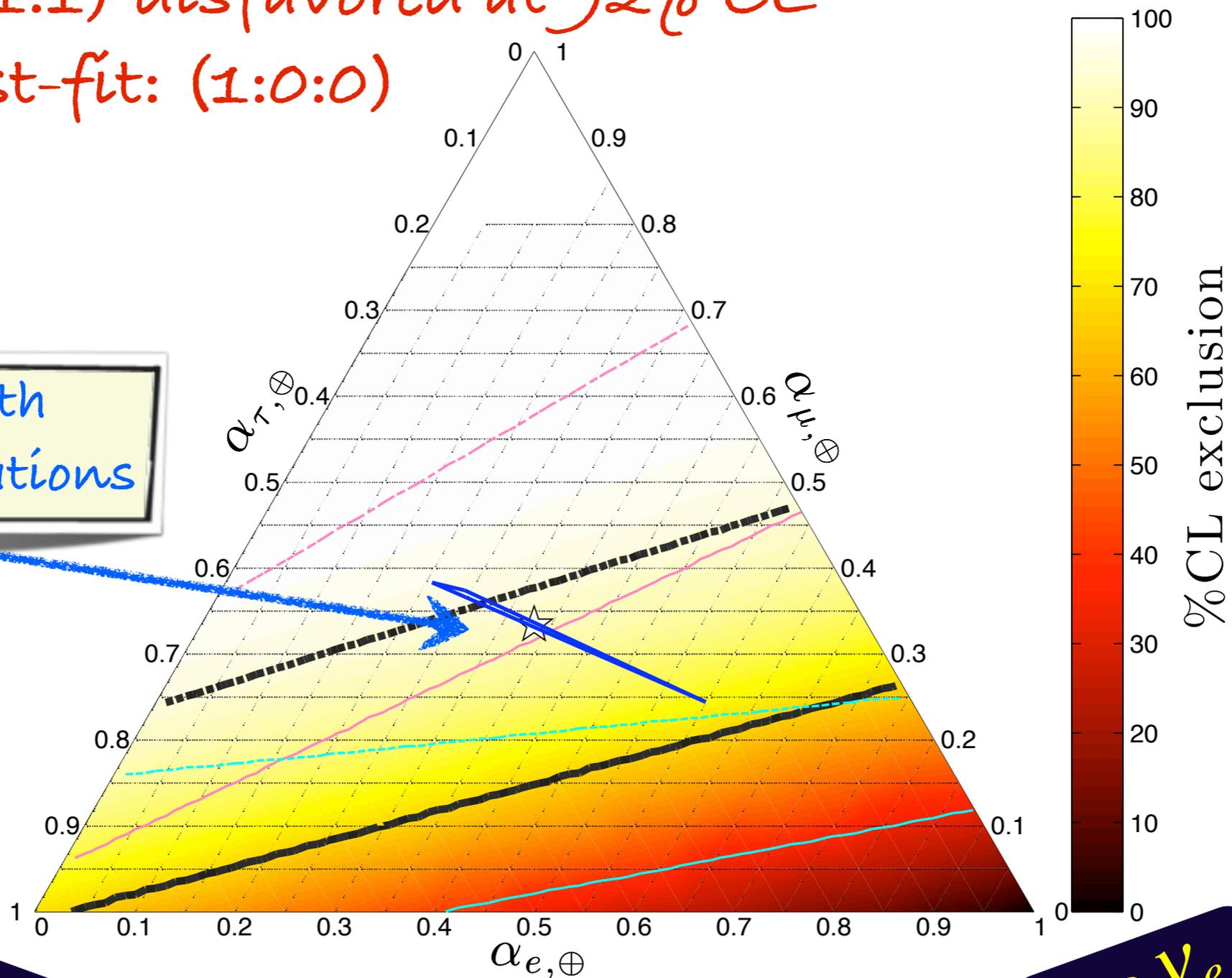
On the flavor composition of the high-energy neutrinos in IceCube, October 2, 2014

3-YEAR RESULTS

Pure V_μ

(1:1:1) disfavored at 92% CL
Best-fit: (1:0:0)

Flavor ratios with averaged oscillations



Pure V_τ

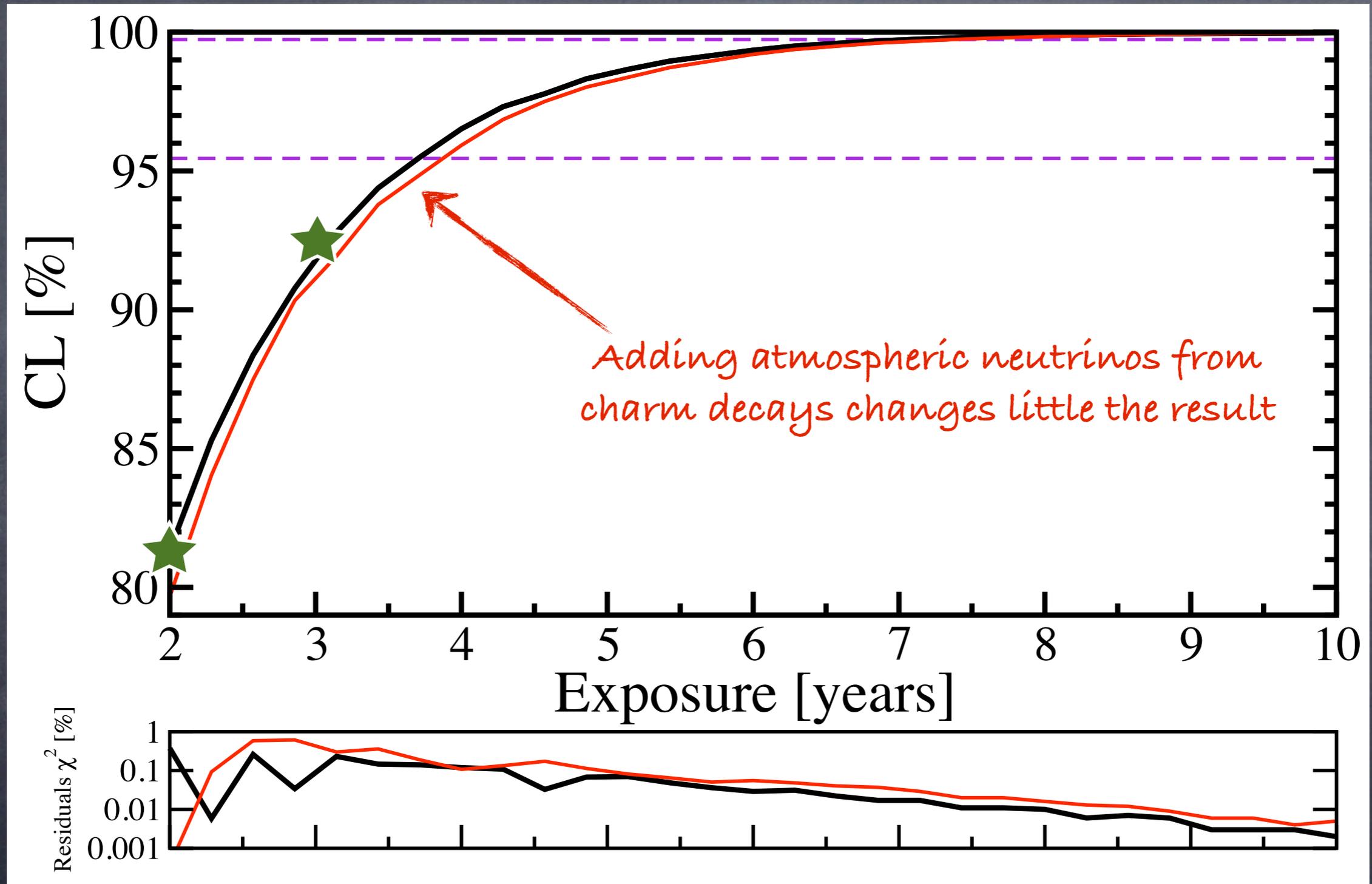
Pure V_e

O. Mena, SPR and A. C. Vincent, Phys. Rev. Lett. 113:091103, 2014

Sergio Palomares-Ruiz

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TIME EXTRAPOLATION FOR (1:1:1)

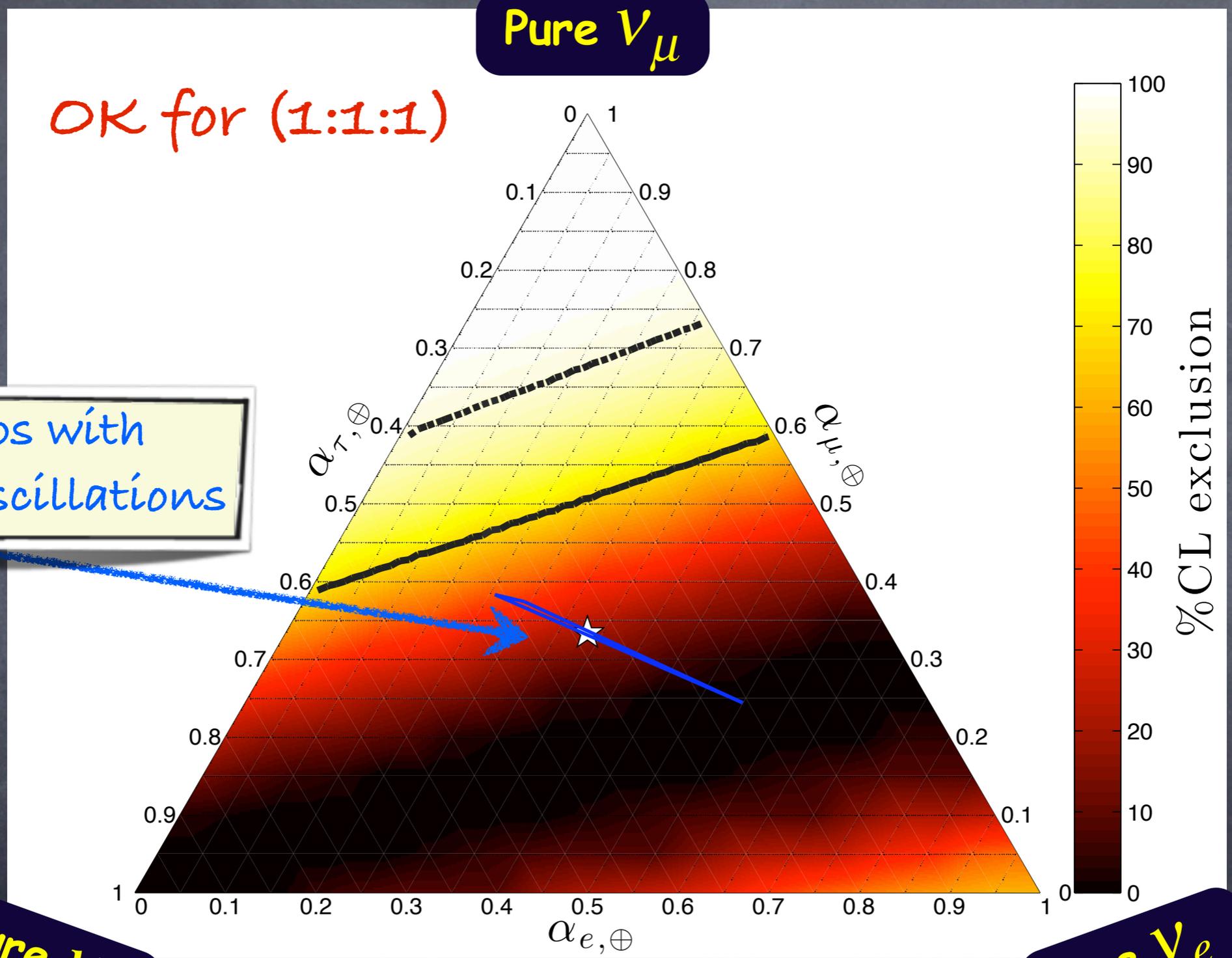


3 YR: DEPOSITED ENERGY > 60 TEV

Pure V_μ

OK for (1:1:1)

Flavor ratios with averaged oscillations



Pure V_τ

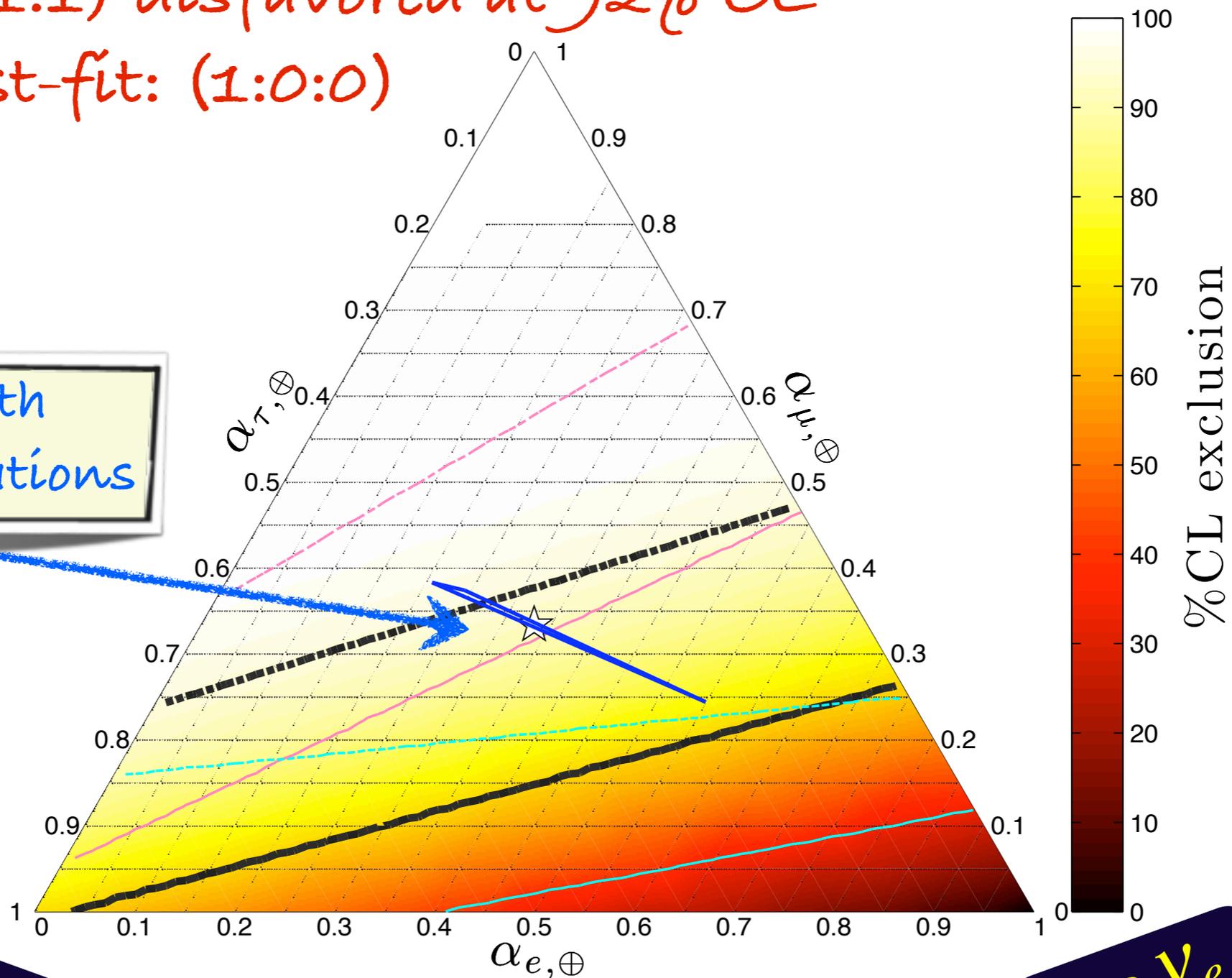
Pure V_e

3-YEAR RESULTS

Pure V_μ

(1:1:1) disfavored at 92% CL
Best-fit: (1:0:0)

Flavor ratios with averaged oscillations



Pure V_τ

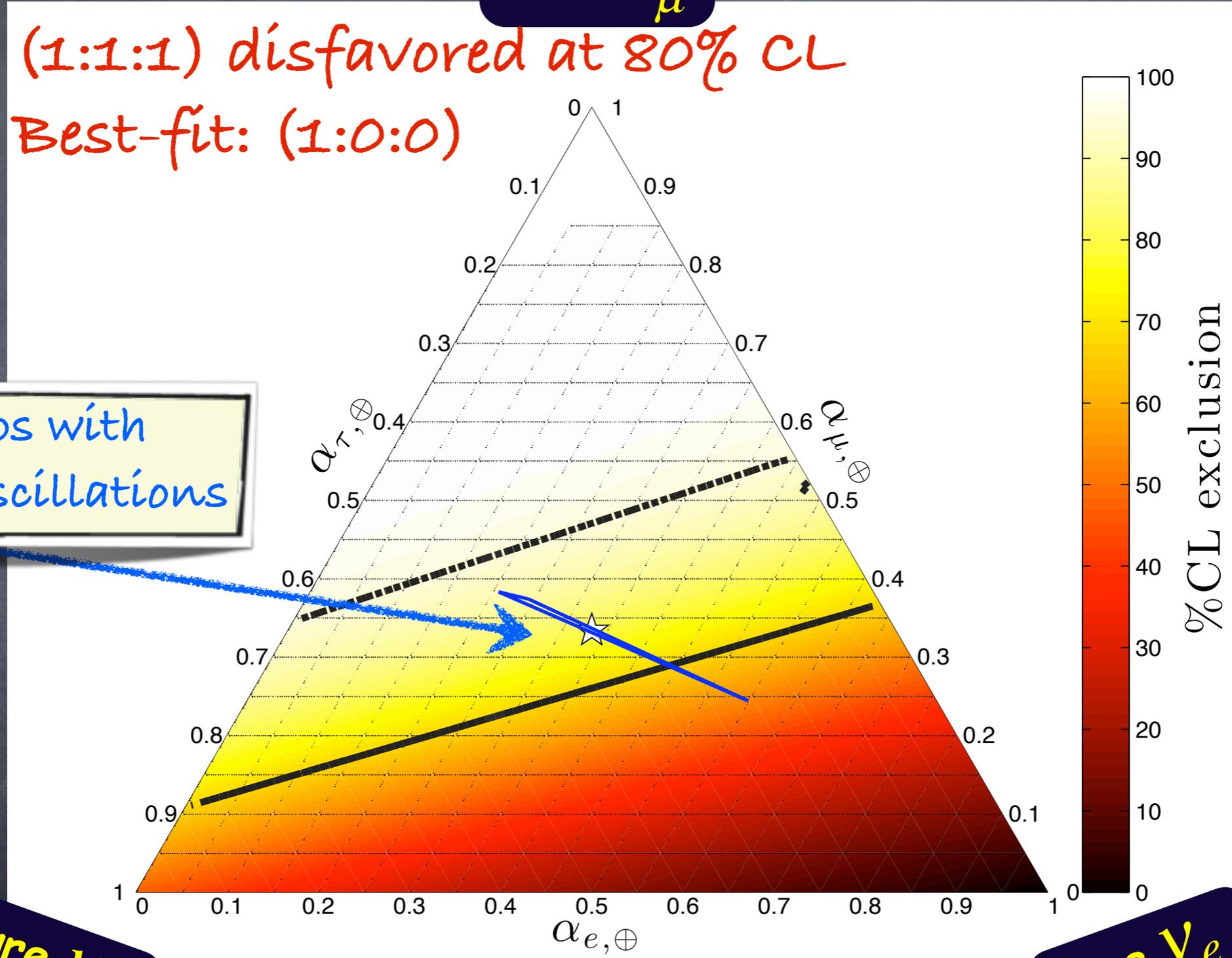
Pure V_e

3-YEAR RESULTS WITH ERRORS

Pure V_μ

(1:1:1) disfavored at 80% CL
Best-fit: (1:0:0)

Flavor ratios with averaged oscillations



Pure V_τ

Pure V_e