

- **Tau neutrinos ν_τ**

- Only 19 ν_τ CC interactions are directly observed.
- Super-K, IceCube: oscillated ν_τ :
 - ▶ *relative appearance rates* and don't give precise cross-section constraints.
- No measurements for $E > 250$ GeV.

• Muon neutrinos ν_μ

- Accelerator data: up to 360 GeV.
- IceCube: above 6.3 TeV (large uncertainties).
- Gap between 360 GeV – 6.3 TeV remains unexplored.

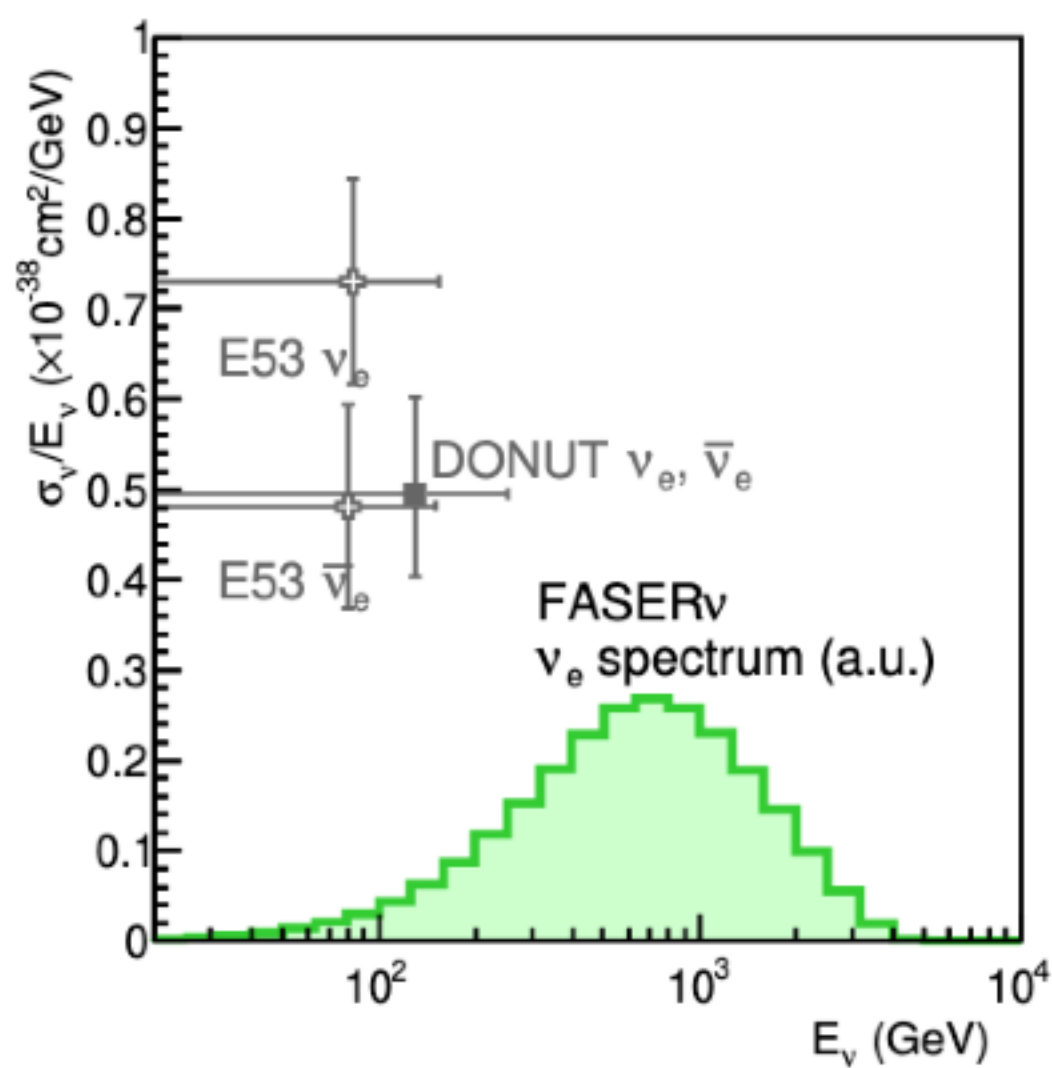
- **Electron neutrinos ν_e**

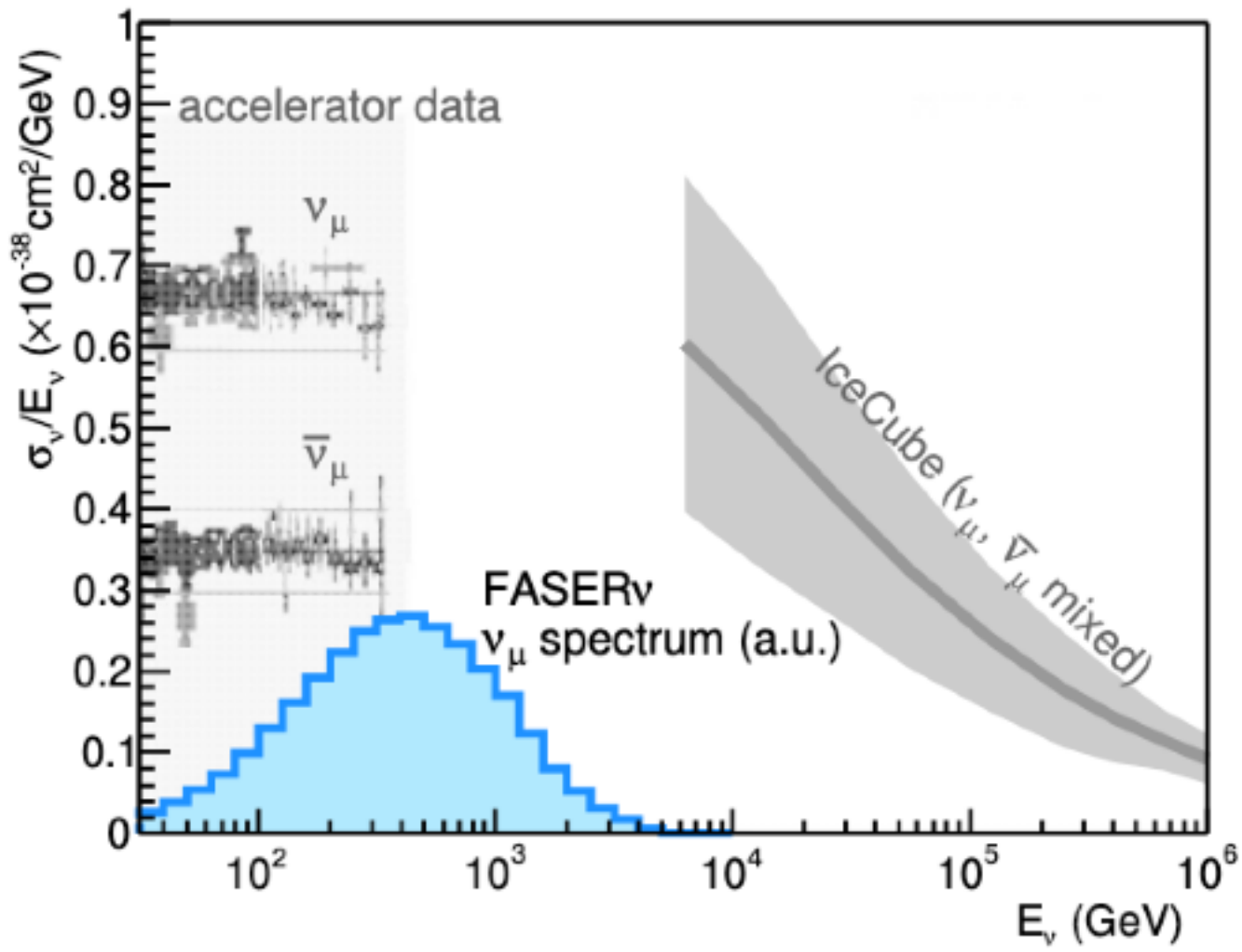
- Gargamelle: up to 12 GeV.
- E53 & DONuT: up to ~200 GeV.
- No direct data above 250 GeV.

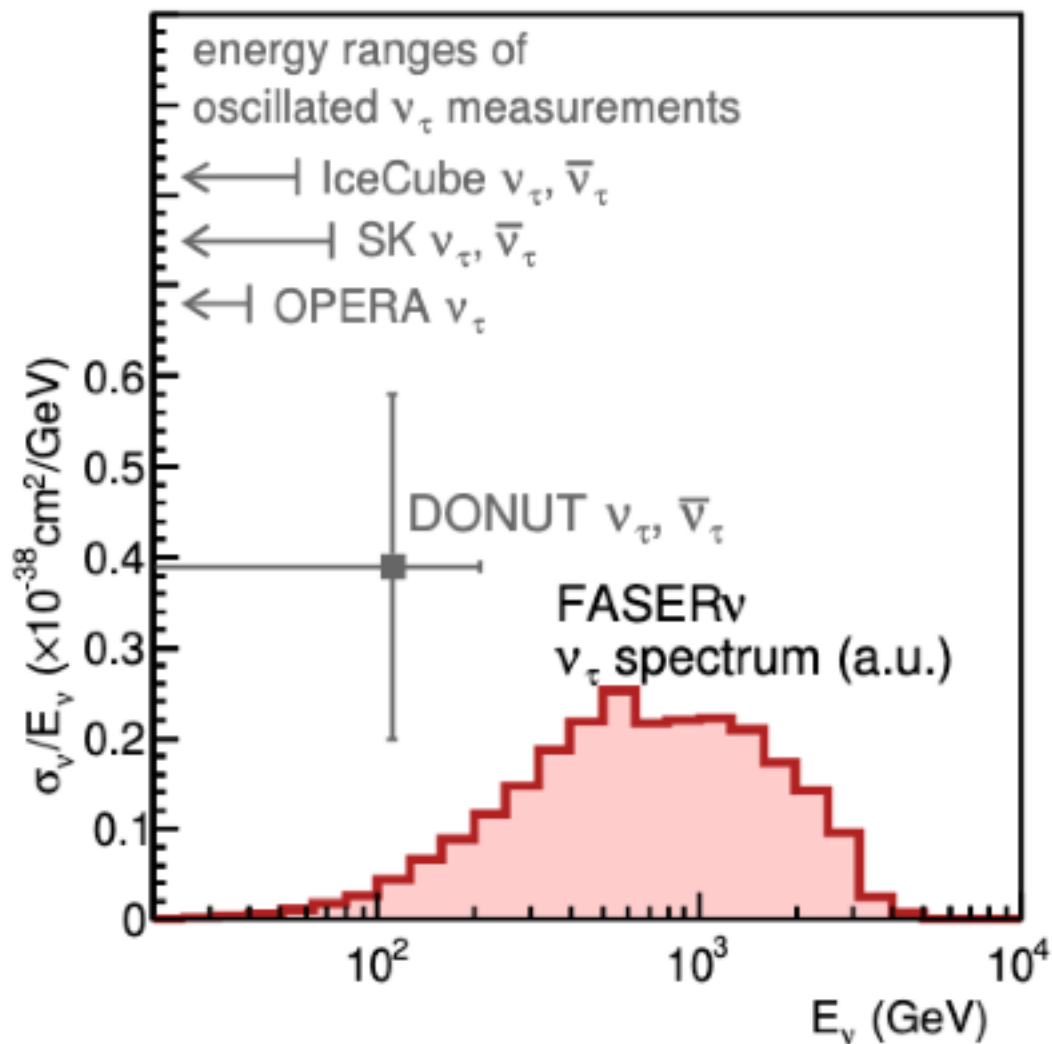
Cool, but Why?

Neutrino Physics











[Unit Kose: A New Frontier with FASER. ETH-IPAC Equin Presentation]

Primary goal: select the most different neutrino flavors at TeV energies

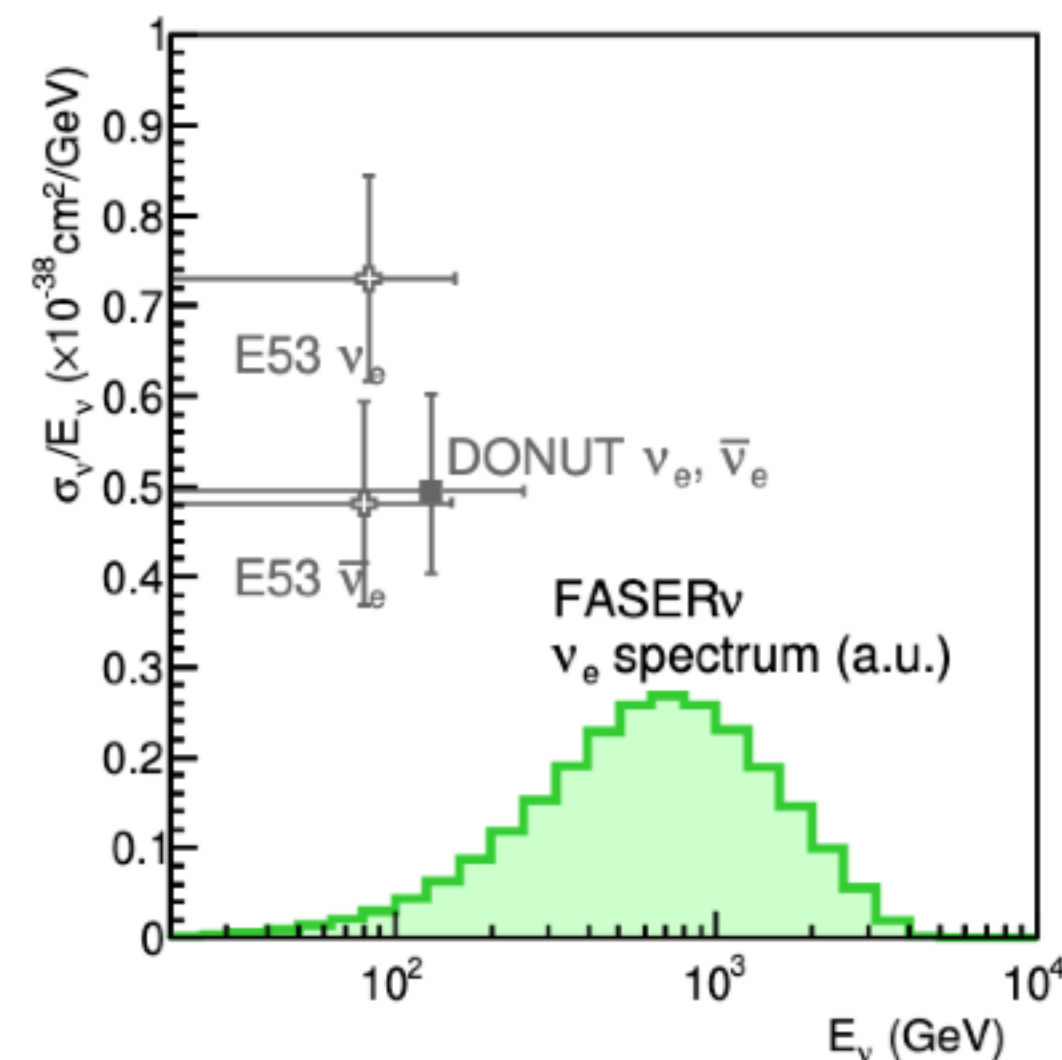
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Neutrino Physics

Primary goal: cross section measurements of different neutrino flavors at TeV energies.

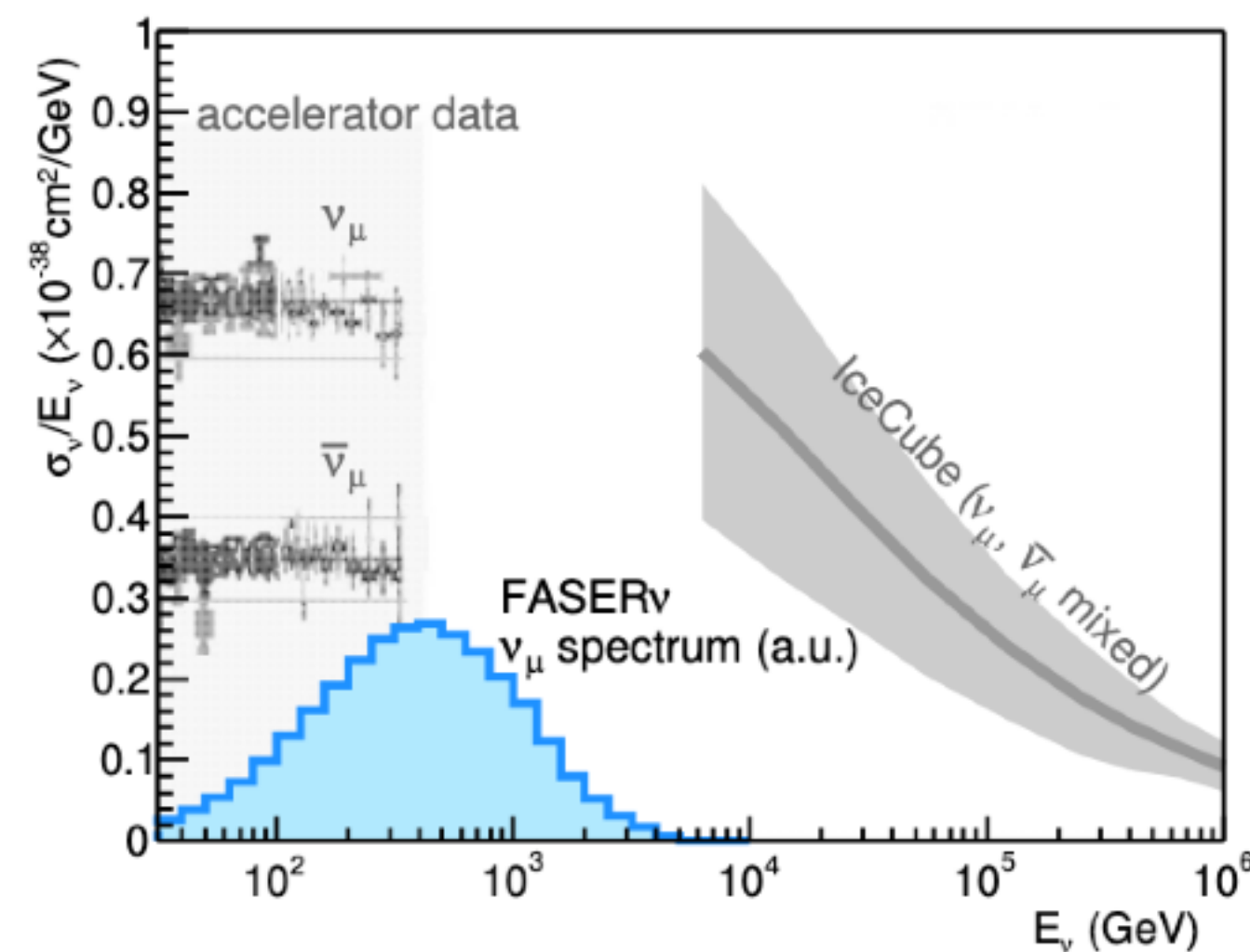
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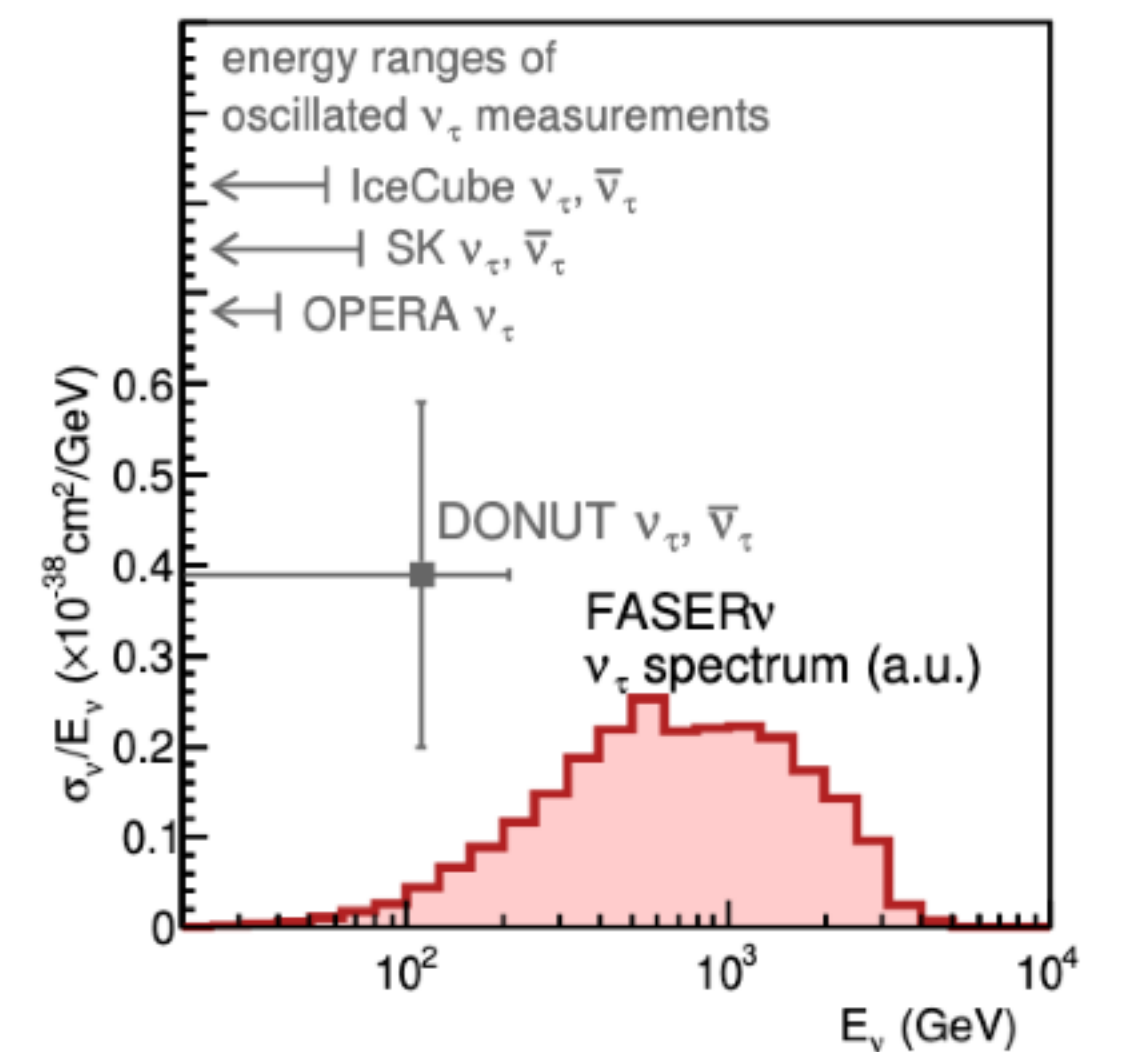
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Methodology
