## XXV DAE-BRNS High Energy Physics Symposium 2022



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## Minimal structure for neutrino mass matrix

Thursday 15 December 2022 14:00 (1 hour)

We formulate a texture 2 zero mass matrix for neutrinos, with charged lepton matrix being diagonal, compatible with the current oscillation data. The proposed matrix is having a minimal structure and hence is very predictive. The predictions of the proposed mass matrix for lightest neutrino mass  $m_{\nu_1}$ , Jarlskog's rephasing invariant J, CP violating phase  $\delta$  and effective neutrino mass  $\langle m_{ee} \rangle$  are found to be in tune with the latest global analyses. In particular, the Majorana phases exhibit constrained ranges and are strongly correlated, which might have useful implications for experimental searches related to these phases. Some of the mass matrix elements are observed to be almost linearly correlated with  $m_{\nu_1}$  which shows that a measurement of absolute neutrino masses will constrain our model.

## Session

Neutrino Physics

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Session Classification: Poster - 3