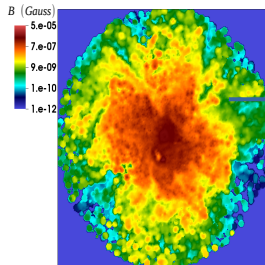
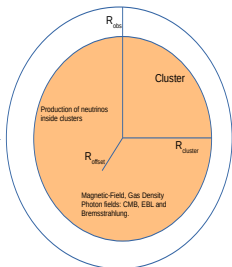


Neutrinos Flux from ICM (Saqib Hussain IAG-USP)

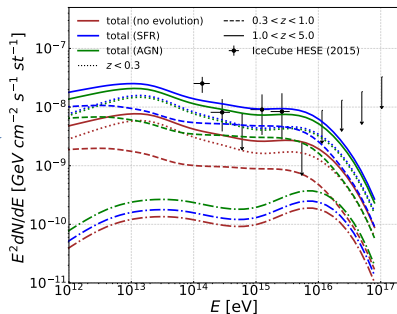
MHD Simulation of ICM



CR Simulation



Neutrino Flux



- **Total Neutrinos Flux from ICM is Comparable to IceCube Data**
- CRs of $E < 10^{17}$ eV can trap in **massive clusters ($> 10^{14} M_{\text{sun}}$)** and produce **Neutrino Flux of PeV energy**
- Most of the **Neutrino Flux** comes from nearby **Clusters at $z < 0.3$**
- Redshift evolution of CR sources like **AGN** and **SFR**, **enhance the flux of neutrinos.**