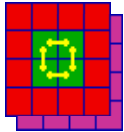


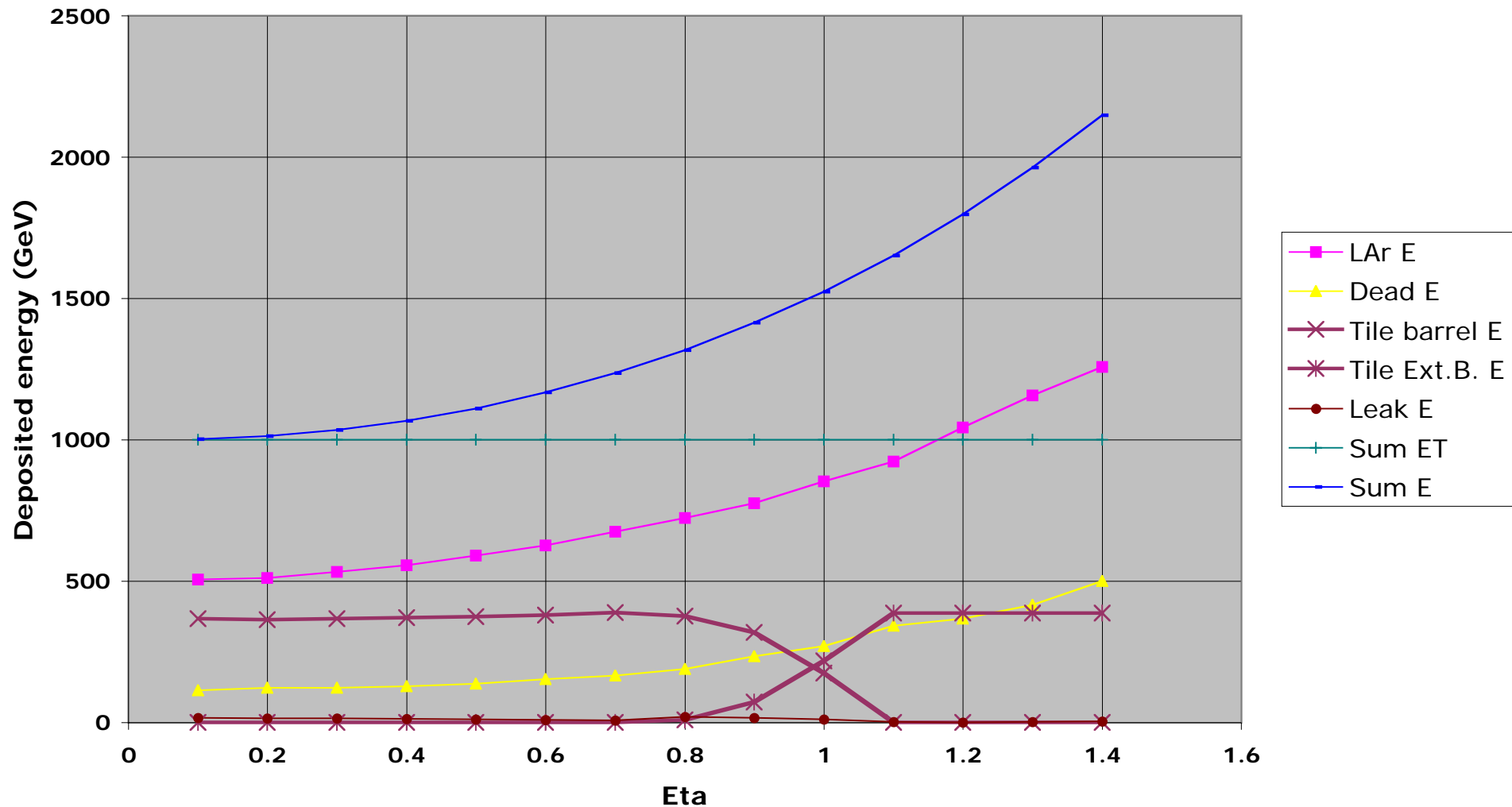
TileCal summing amplifier gain

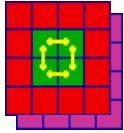
- **TileCal trigger summing amplifier FDR/PRR**
 - Concluded that amplifier gain should be reduced from 8 to ~ 7 since otherwise might saturate in E_T in extended barrel.
 - However, Rupert Leitner then showed that for 1 TeV jets, dead material flattened the energy deposition in the TileCal — it does not seem to follow $1/\sin(\theta)$.
 - We asked Rupert for a simulation at lower, non-saturating energies.
- **Simulations parametrise hadronic energy deposition to agree with:**
 - Full Monte-Carlo simulation
 - Test-beam data for single pions



Results for 1 TeV jets

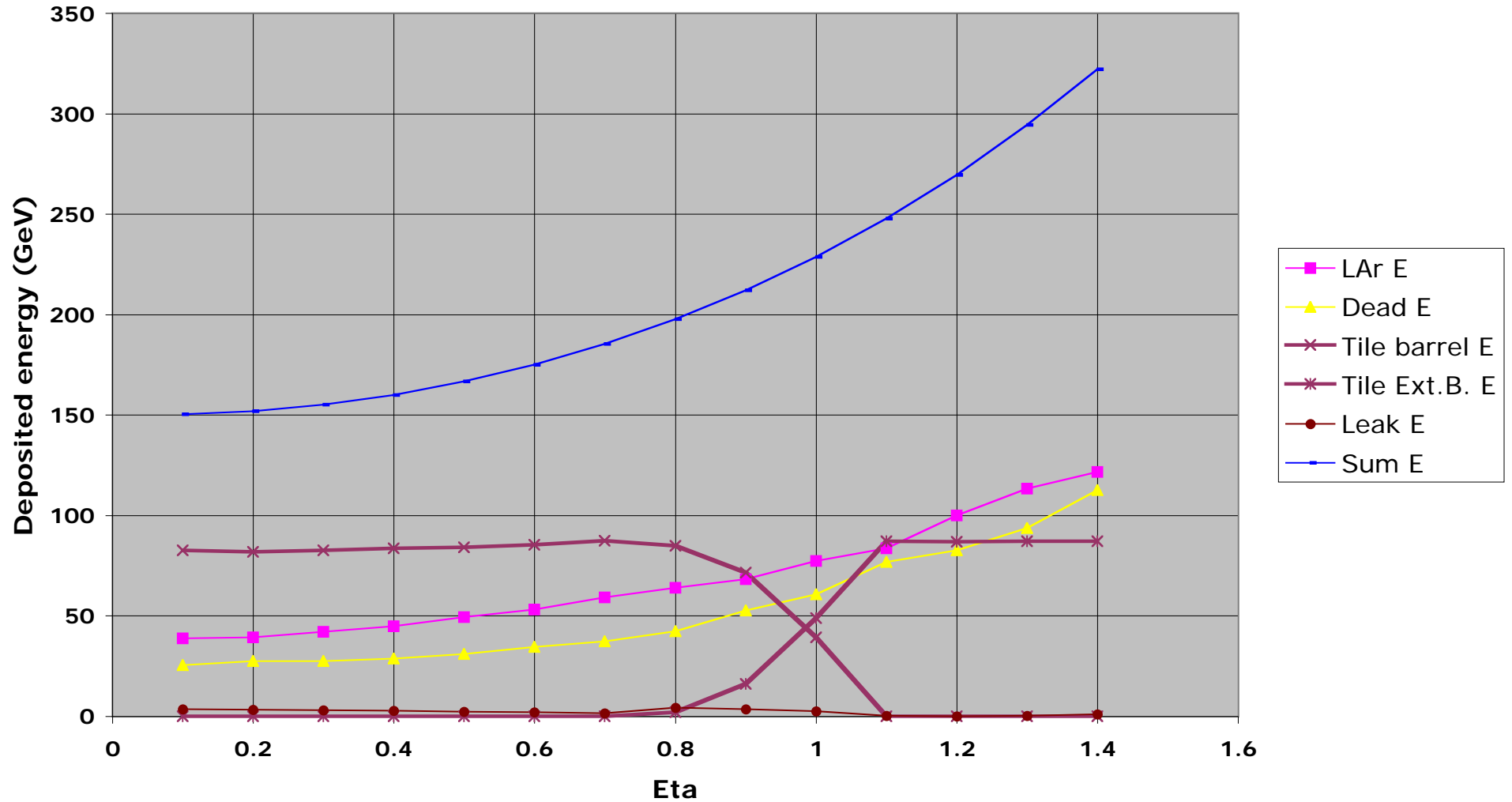
1 TeV jets

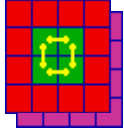




Results for 150 GeV single pions

150 GeV pions





Conclusion

- **Results for 150 GeV jets (*not given in detail*) show similar effect to 150 GeV pions.**
- **It looks as if the present choice of gain will not saturate below 256 GeV in the TileCal extended barrel, so we can leave it as is.**