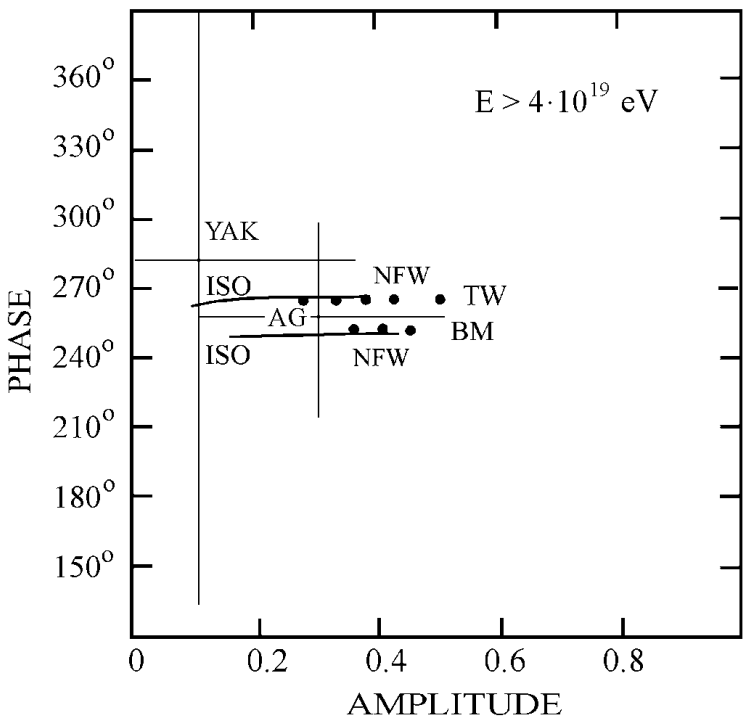arXiv:astro-ph/9810277 v3 14 Jan 1999