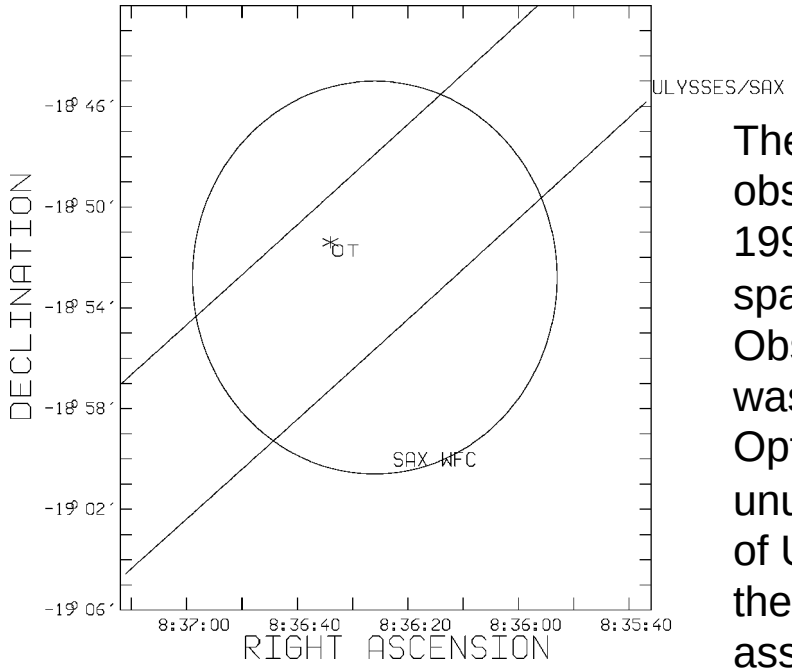
Determination of Gamma-Ray Burst Location by Ulysses



The gamma-ray burst experiment aboard Ulysses observed a cosmic gamma-ray burst on March 26, 1998, in conjunction with the Italian BeppoSAX spacecraft and NASA's Compton Gamma-Ray Observatory. Initially, based on the SAX data, the burst was located to a circle with a radius of 8 arcminutes. Optical searches of this region were begun, and an unusual fading object was identified. Time comparisons of Ulysses, GRO, and Beppo-Sax burst arrivals reduced the uncertainty in burst location and confirm the association with the optical source.

This map in celestial coordinates shows the location of the burst of March 26 1998 as determined by the SAX Wide Field Camera (circle of radius 8') and as determined by "triangulation", i.e. comparing the arrival times of the burst at the Ulysses, BeppoSAX, and GRO spacecraft. The resulting error box is smaller in area than the circle alone. The position of the fading optical transient is indicated.