

Measuring Angles in Degrees, Arcminutes and Arcseconds

One Circle:
 360° degrees
 21,600' minutes
 1,296,000" seconds

1 degree = 60 minutes
 1 minute = 60 seconds

$60^{\circ}35'18'' = 32 + (35 * \frac{1}{60}) + (18 * \frac{1}{60} * \frac{1}{60}) = 60.588333^{\circ}$

Prefix	Symbol	Factor
Tera	T	10^{12}
Giga	G	10^9
Mega	M	10^6
Kilo	k	10^3
Hecto	h	10^2
Deka	da	10^1
Deci	d	10^{-1}
Centi	c	10^{-2}
Mili	m	10^{-3}
Micro	μ	10^{-6}
Nano	n	10^{-9}
Pico	p	10^{-12}
Femto	f	10^{-15}

Parallax

1998 Dec 31

2012-11-29 01:33 UTC

Proper Motion of 61 Cygni

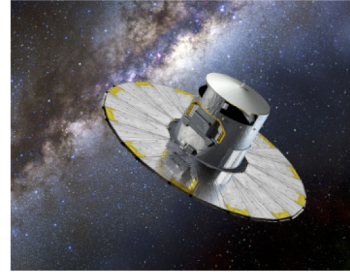
Denoted $\mu \sim 5''/\text{yr}$

Friedrich Wilhelm Bessel



- Measures first reliable parallax (1838) 61 Cygni of $\pi = 0.314''$
- Modern value is $\pi = 0.28588 \pm 0.00054''$

Gaia Spacecraft



Determine the position, parallax, and annual proper motion of **1 billion stars** in Milky Way with an accuracy of about 20 - 200 μas (depending on brightness of stars).