

Minimum detectable 1AU planet mass at:

20 pc	5,0 Earth mass
10 pc	1,8 Earth mass
5 pc	0,5 Earth mass

$$M = (d/10) \cdot (A/0,3)$$

Min. detectable astrometric signature for 3-planet system

0,8 uas
0,5 uas
0,3 uas

$$A = DMA \cdot SNR / \sqrt{(2N-m) t}$$

Number of planets in the system (P)
3

of parameters for a P -planet system (m)
26
 $m = 5 + 7P$

SNR
6

Integration time for 1 visit (t)

0,5 h
1 h
3 h

Total number of visits during the mission lifetime (N)
50

Differential Measurement Astrometric accuracy per 1h observation and per axis (X,Y)
0,8 uas

Astrometric end-of-mission noise per axis (X, Y)

0,15 uas
0,11 uas
0,06 uas

$$sig_{X,Y} = DMA / \sqrt{Nt}$$

RSS

