$M_{star}$ =0.80  $M_{\odot}$ ,  $N_{obs}$ =200,  $\sigma_{RV}$ =0.20 m/s True: per=74.6478 days, mass=1.00  $M_{\oplus}$ ,ecc=0.20, w=351.89 deg Fit: per=74.5151 days, msini=1.04  $M_{\oplus}$ , ecc=0.21, w=308.31 deg 0.8 True 0.6 Fit X 0.4 RV (m/s) 0.2 0.0 -0.2 $\times$ -0.4-0.6500 1500 2000 1000 +2.457e6 Time (days) 1.8 1.00% 1.6 5.00% 1.4 1.2 1.0 8.0 0.6 0.4 0.2 0.0 E 10<sup>0</sup> 10<sup>2</sup> 10<sup>3</sup> 10<sup>1</sup> 10<sup>-1</sup> Period (days)