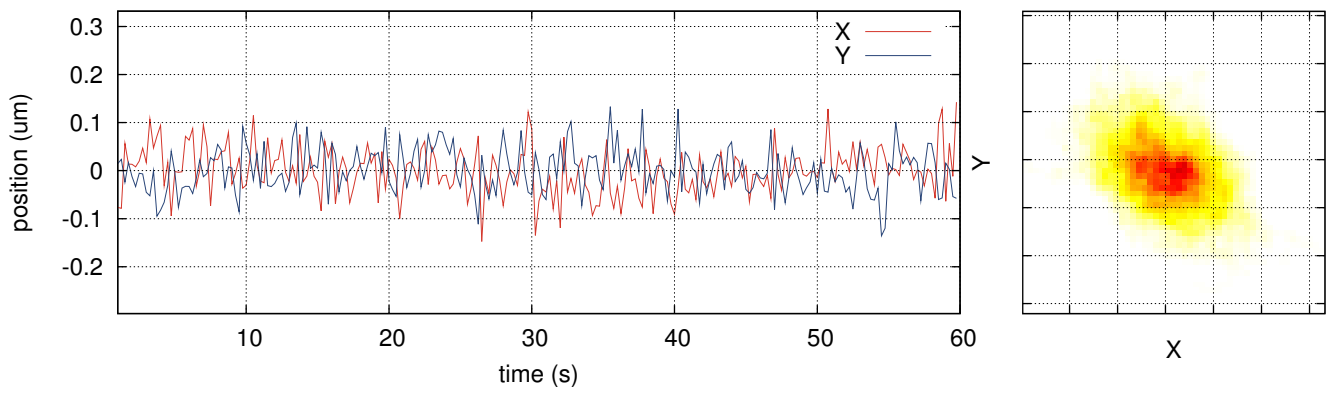
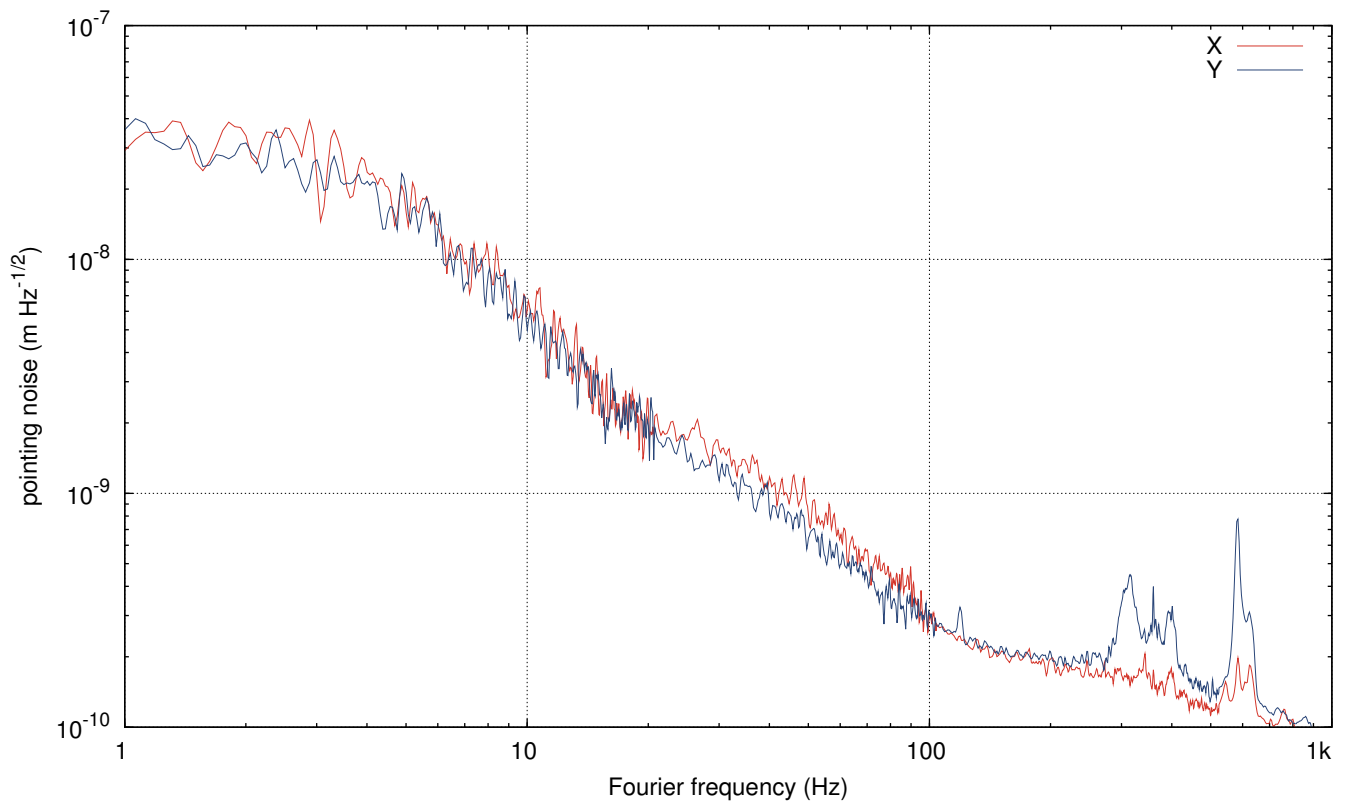


POWER STABILIZATION

Measurement:	60 s = 1.0 min, 16. Oct 2012 09:32 PDT
Stabilization:	first loop closed, integrator on; second loop injection off
Reference signal:	-1.952 V
First-loop gain:	7.0 V
Last saturation event:	0d 0h 3m
Average AOM diffraction:	6.96%
Diffraction signal range:	0.99% . . . 10.05% (9.06% peak-to-peak, 32768 Hz samplingrate)

POWER NOISE

	Photodiode A (PDA)	Photodiode B (PDB)
Average DC signal:	9.665 V	9.894 V
FILT signal range:	1.905 V . . . 1.951 V (0.004 V_{rms})	1.973 V . . . 1.984 V (0.001 V_{rms})
FILT samplingrate:	32768 Hz	32768 Hz
Photocurrent:	2.9 mA	3.0 mA
Relative shot noise level:	$1.05\text{e-}08 \text{ Hz}^{-1/2}$	$1.04\text{e-}08 \text{ Hz}^{-1/2}$



POSITION FLUCTUATIONS	
X position:	$9.700 \pm 0.075 \mu\text{m}$, $9.403 \mu\text{m} \dots 10.032 \mu\text{m}$
Y position:	$-13.523 \pm 0.068 \mu\text{m}$, $-13.787 \mu\text{m} \dots -13.280 \mu\text{m}$
Samplingrate:	32768 Hz, 32768 Hz

D A Q	
Measurement duration:	60 s = 1.0 min
Measurement start:	16. Oct 2012 09:32 PDT (16. Oct 2012 16:32 UTC, 1034440356 GPS)
NDS:	h1nds1:8088 (v12r0)
User:	psl@operator2
Channels:	H1:PSL-ISS_PDA_OUT 32768 Hz, H1:PSL-ISS_PDB_OUT 32768 Hz, H1:PSL-ISS_DIFFRACTION_OUT 32768 Hz, H1:PSL-ISS_QPD_DX_OUT 32768 Hz, H1:PSL-ISS_QPD_DY_OUT 32768 Hz, H1:PSL-ISS_LOOP_STATE_OUTPUT 16 Hz, H1:PSL-ISS_REFSIGNAL_MON_OUTPUT 16 Hz, H1:PSL-ISS_GAIN 16 Hz, H1:PSL-ISS_SECONDDLOOP_CLOSED 16 Hz, H1:PSL-ISS_SAT_MIN 16 Hz, H1:PSL-ISS_SAT_HOUR 16 Hz, H1:PSL-ISS_SAT_DAY 16 Hz
Raw data:	rawdata.zip (attached to this .pdf file, use Adobe Reader)
Calibration:	default.cali (embedded), 01. Jan 1970 00:00 UTC
Report source files:	report.zip (attached to this .pdf file, use Adobe Reader)
Program:	iss_rpn.py v0.6, Patrick Kwee, patrick.kwee@aei.mpg.de

I N F O	
Measurement method: The power noise downstream of the PMC is measured with two low-noise 2 mm InGaAs photodetectors. One of the photodetectors is used as sensor in the ISS first feedback control loop. The signal to the AOM driver is used to estimate the free-running power noise of the laser system.	
<i>no comment</i>	