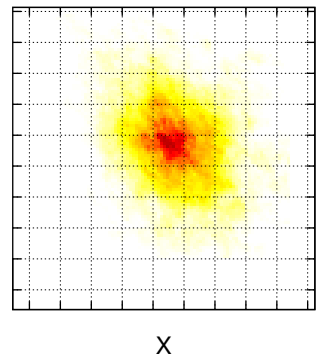
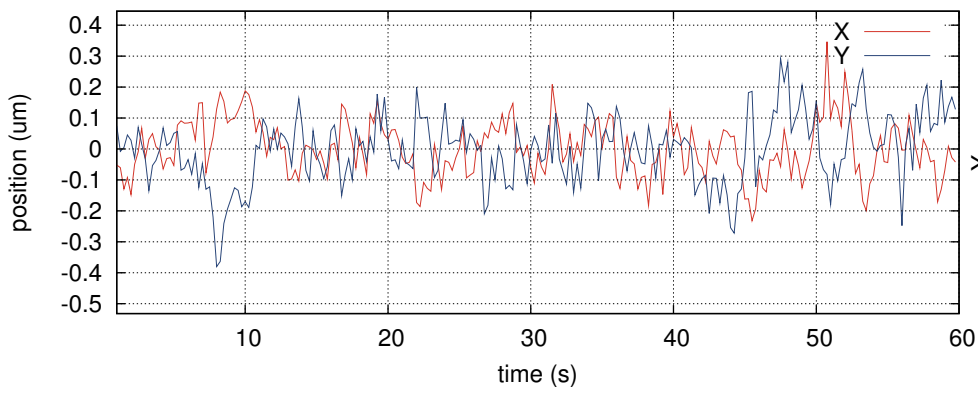
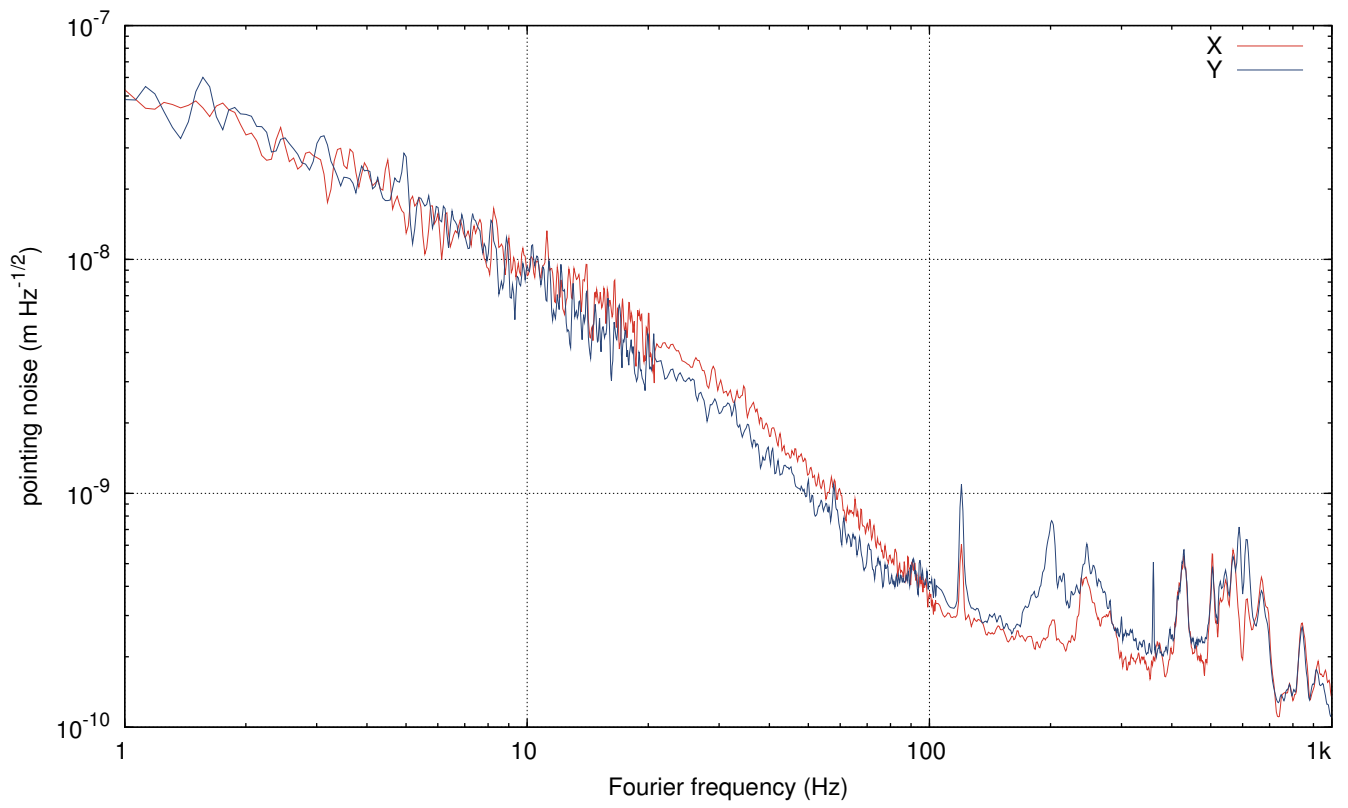


POWER STABILIZATION

Measurement:	60 s = 1.0 min, 01. Feb 2012 12:15 PST
Stabilization:	first loop closed, integrator on; second loop injection off
Reference signal:	-2.133 V
First-loop gain:	-3.2 V
Last saturation event:	0d 1h 8m
Average AOM diffraction:	4.44%
Diffraction signal range:	2.86% . . . 6.50% (3.64% peak-to-peak, 32768 Hz samplingrate)

POWER NOISE

	Photodiode A (PDA)	Photodiode B (PDB)
Average DC signal:	10.801 V	10.435 V
FILT signal range:	2.122 V . . . 2.201 V (0.007 V_{rms})	1.034 V . . . 3.197 V (0.223 V_{rms})
FILT samplingrate:	32768 Hz	32768 Hz
Photocurrent:	3.3 mA	3.1 mA
Relative shot noise level:	$9.92\text{e-}09 \text{ Hz}^{-1/2}$	$1.01\text{e-}08 \text{ Hz}^{-1/2}$



POSITION FLUCTUATIONS	
X position:	$9.278 \pm 0.112 \text{ um}$, $8.883 \text{ um} \dots 9.723 \text{ um}$
Y position:	$-28.932 \pm 0.127 \text{ um}$, $-29.464 \text{ um} \dots -28.490 \text{ um}$
Samplingrate:	32768 Hz, 32768 Hz

D A Q	
Measurement duration:	60 s = 1.0 min
Measurement start:	01. Feb 2012 12:15 PST (01. Feb 2012 20:15 UTC, 1012162528 GPS)
NDS:	h2nds0:8088 (v12r0)
User:	controls@h2pslws0
Channels:	H2:PSL-ISS_PDA_OUT 32768 Hz, H2:PSL-ISS_PDB_OUT 32768 Hz, H2:PSL-ISS_DIFFRACTION_OUT 32768 Hz, H2:PSL-ISS_QPD_DX_OUT 32768 Hz, H2:PSL-ISS_QPD_DY_OUT 32768 Hz, H2:PSL-ISS_LOOP_STATE_OUTPUT 16 Hz, H2:PSL-ISS_REFSIGNAL_MON_OUTPUT 16 Hz, H2:PSL-ISS_GAIN 16 Hz, H2:PSL-ISS_SECONDDLOOP_CLOSED 16 Hz, H2:PSL-ISS_SAT_MIN 16 Hz, H2:PSL-ISS_SAT_HOUR 16 Hz, H2: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>	