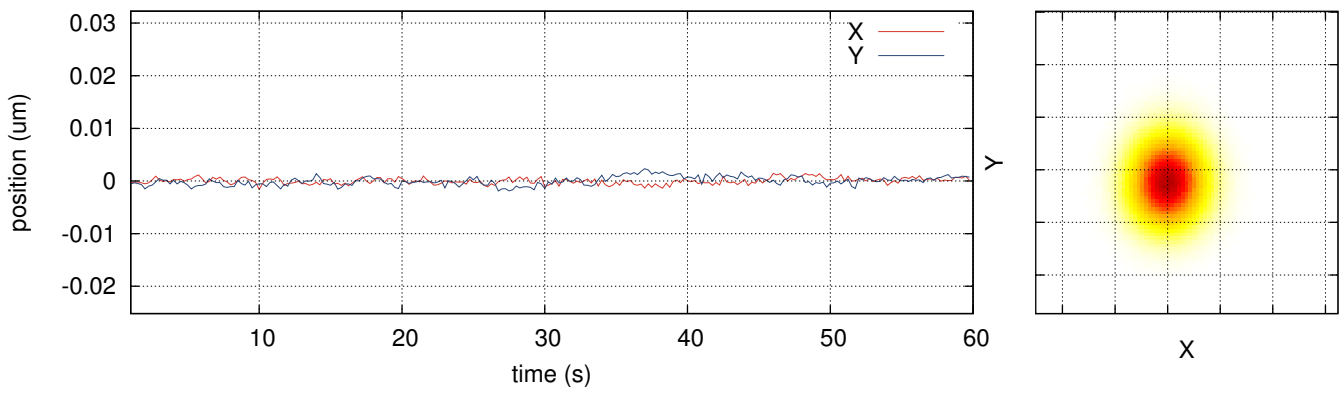
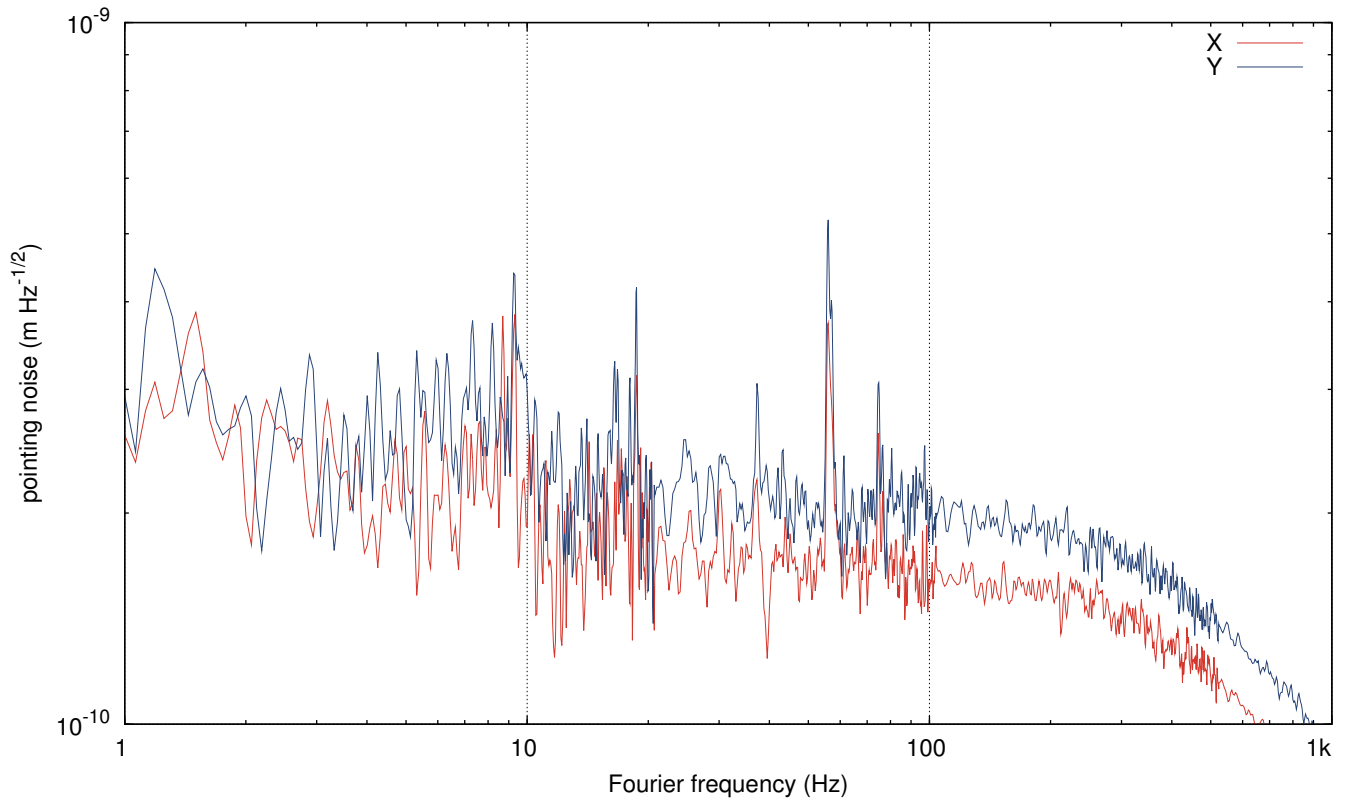


POWER STABILIZATION

Measurement:	60 s = 1.0 min, 06. Apr 2012 11:18 PDT
Stabilization:	first loop closed, integrator on; second loop injection off
Reference signal:	-2.667 V
First-loop gain:	-2.1 V
Last saturation event:	0d 0h 20m
Average AOM diffraction:	7.55%
Diffraction signal range:	4.01% . . . 11.17% (7.16% peak-to-peak, 32768 Hz samplingrate)

POWER NOISE

	Photodiode A (PDA)	Photodiode B (PDB)
Average DC signal:	13.187 V	13.503 V
FILT signal range:	2.557 V . . . 2.725 V (0.017 V_{rms})	2.662 V . . . 2.752 V (0.010 V_{rms})
FILT samplingrate:	32768 Hz	32768 Hz
Photocurrent:	4.0 mA	4.1 mA
Relative shot noise level:	$8.98\text{e-}09 \text{ Hz}^{-1/2}$	$8.88\text{e-}09 \text{ Hz}^{-1/2}$



POSITION FLUCTUATIONS	
X position:	$-0.010 \pm 0.005 \mu\text{m}$, $-0.032 \mu\text{m} \dots 0.018 \mu\text{m}$
Y position:	$-0.032 \pm 0.006 \mu\text{m}$, $-0.057 \mu\text{m} \dots 0.000 \mu\text{m}$
Samplingrate:	32768 Hz, 32768 Hz

D A Q	
Measurement duration:	60 s = 1.0 min
Measurement start:	06. Apr 2012 11:18 PDT (06. Apr 2012 18:18 UTC, 1017771521 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>	