

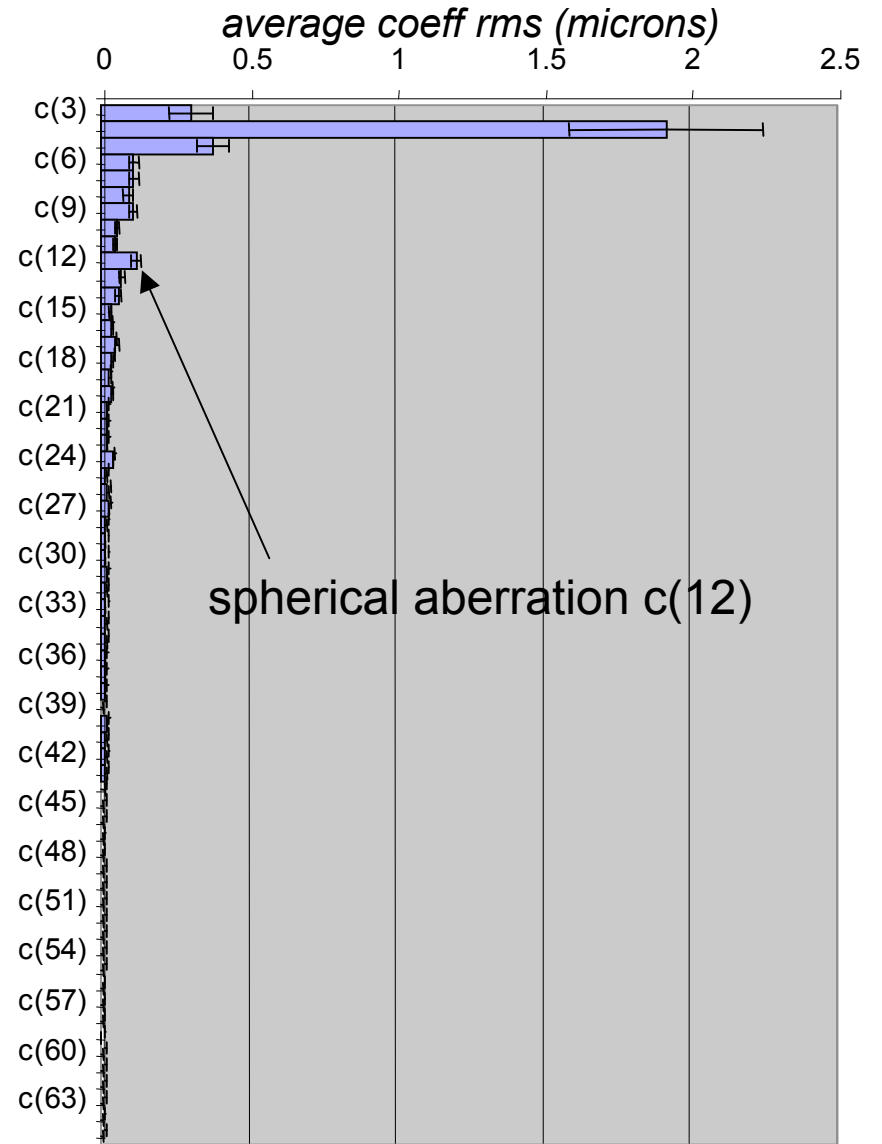
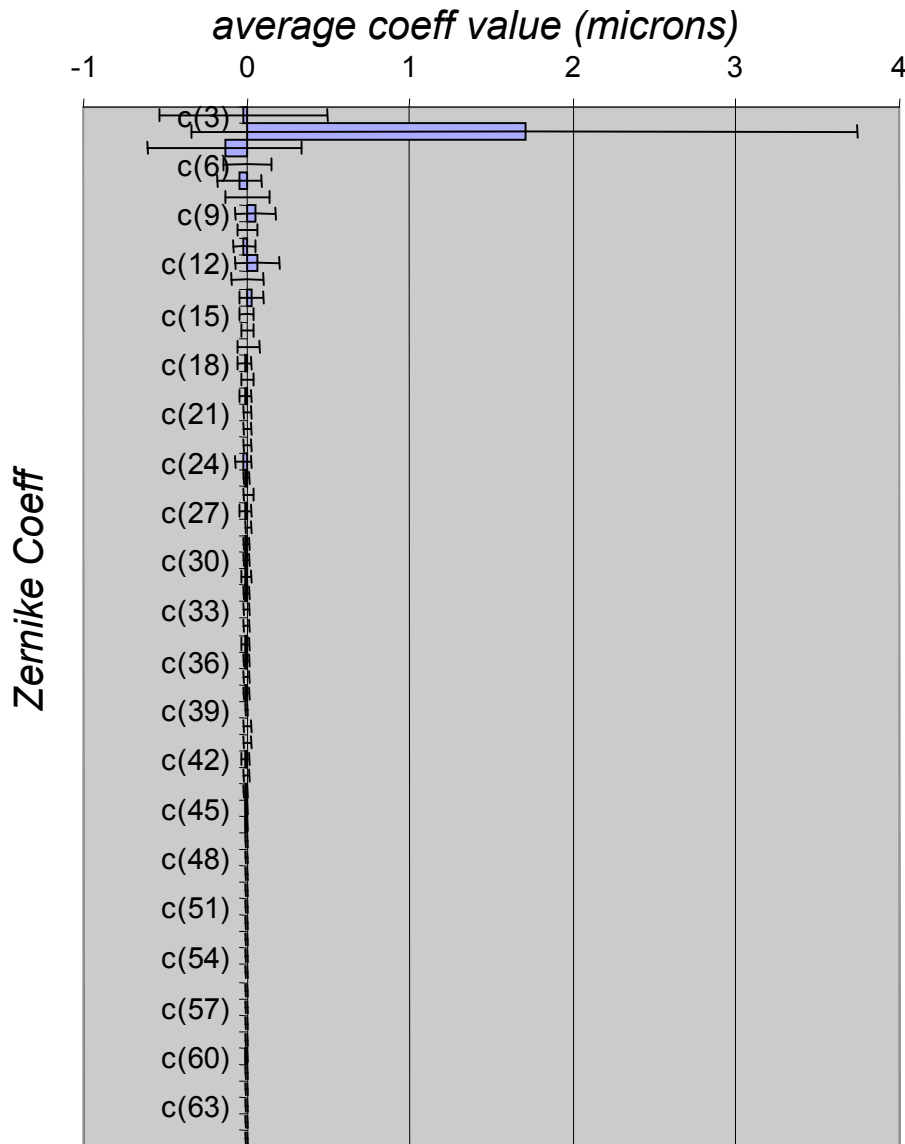
Ocular Aberration Summary**

***warning: do not take these results too seriously!*

Methods

- Eye were analyzed for 5 and 6 mm sub-pupils, as long as their eyes were sufficiently dilated
- 31 eye had 6mm or more
- 40 eyes had 5mm or more

6 mm pupil

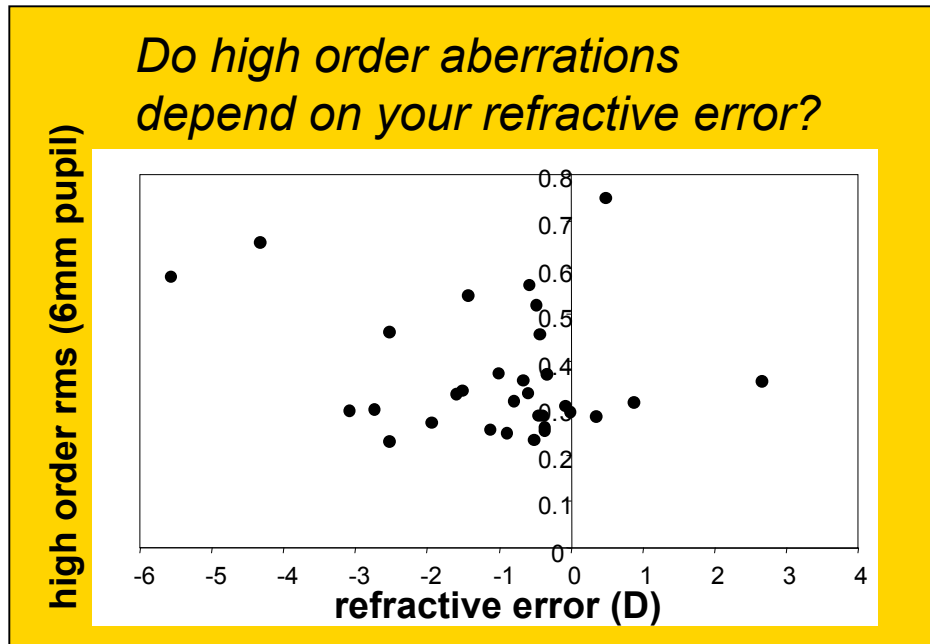
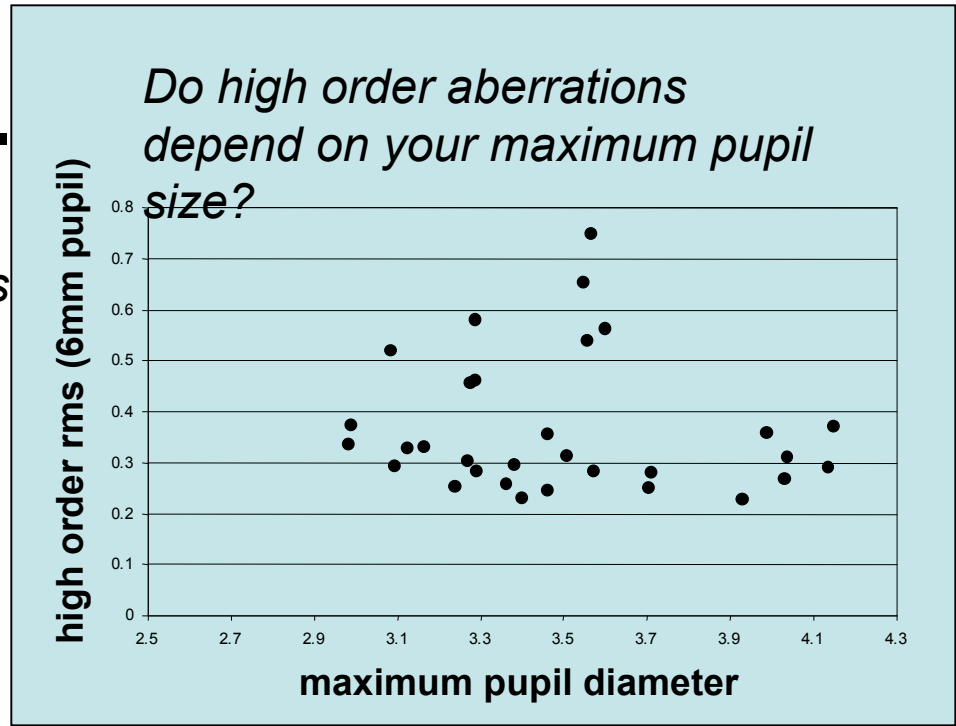
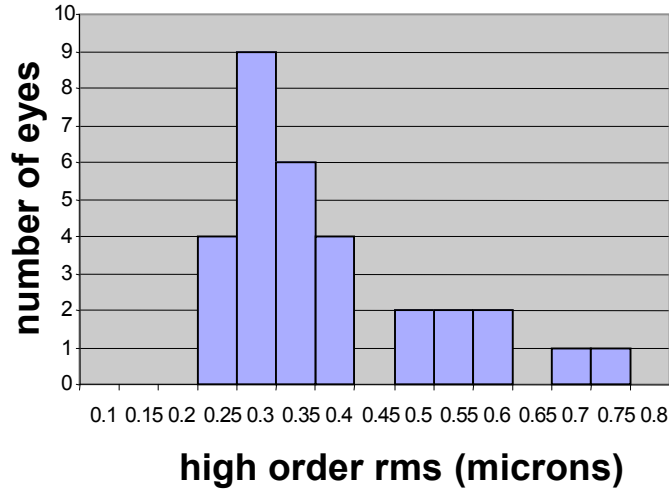


6 mm population results

- Average aberrations are zero (except for defocus, which tends toward myopia, or nearsightedness)
- The magnitude of aberrations diminishes as the order of aberrations increase

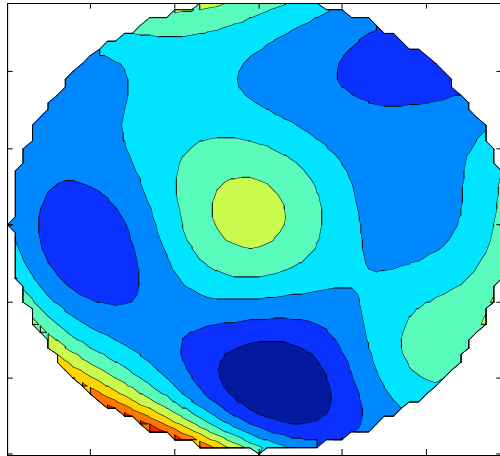
Other trends.....

Histogram of 6 mm high order rms values

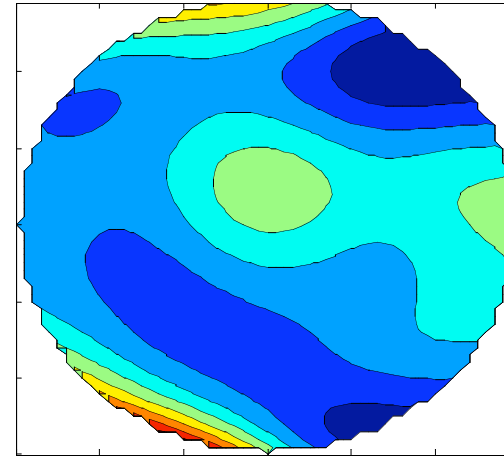


Do those aberration correcting glasses really work?

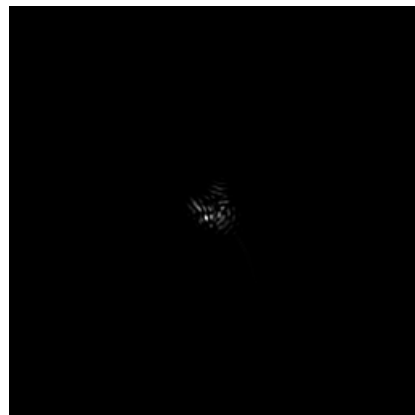
Before glasses



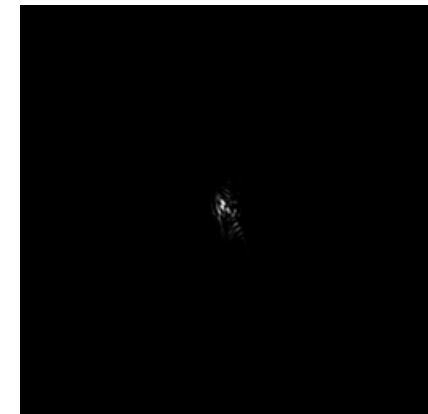
After glasses



HO RMS - .309
Strehl - 0.057



HO RMS - 0.289
Strehl - 0.065

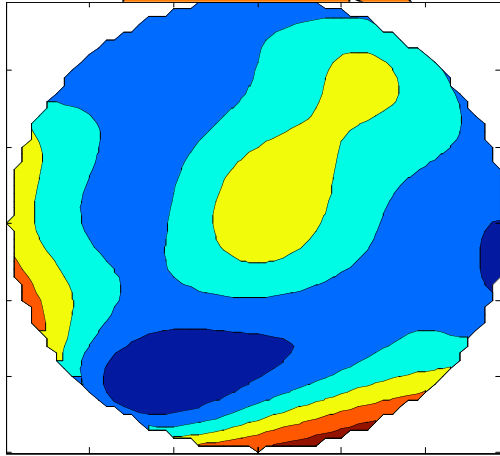


6 mm pupil

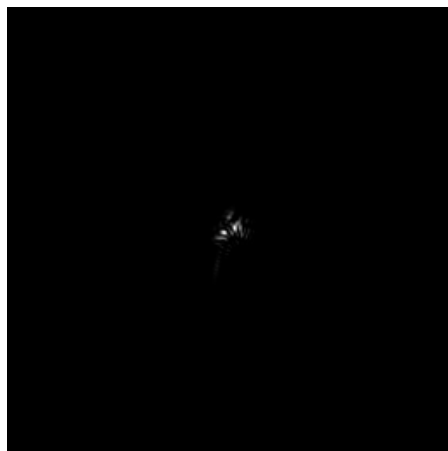
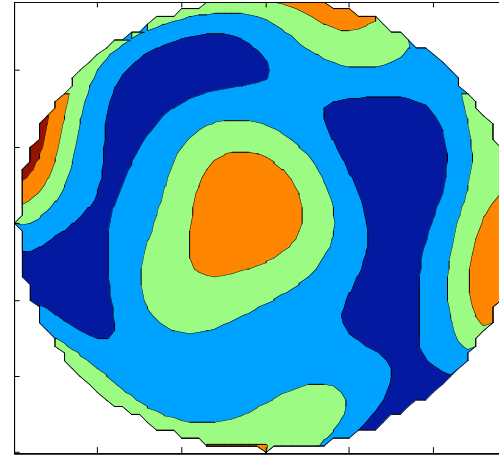
And now, what you've all
been waiting for.....

Best optics (after best correction) 6 mm pupil

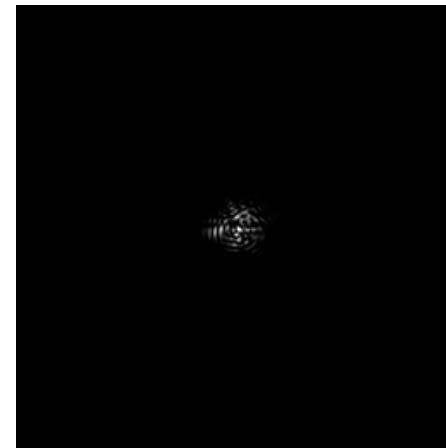
Amir Giveon



Runner up..
Joe Carroll



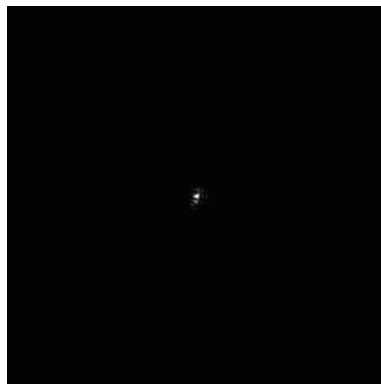
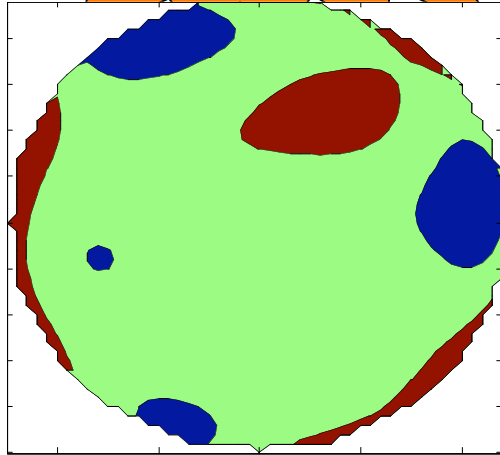
HO RMS - .225



HO RMS - .228

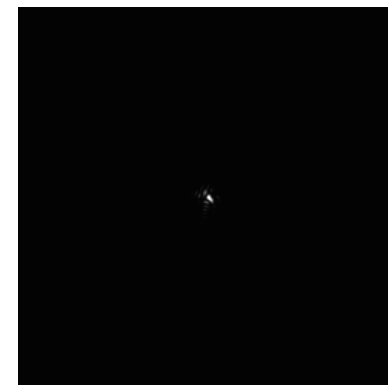
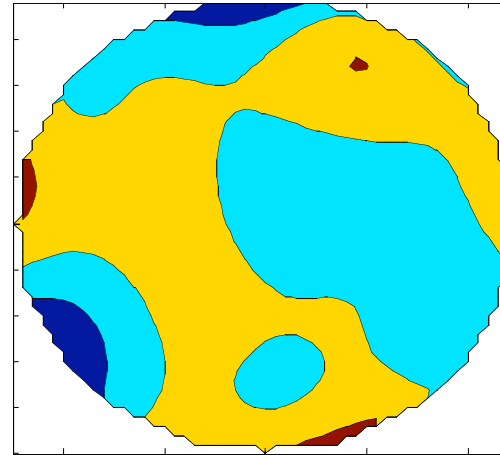
Best optics (after best correction) 5 mm pupil

Michela Fernandez



HO RMS - .108

Runner up..
Matt Sheehan

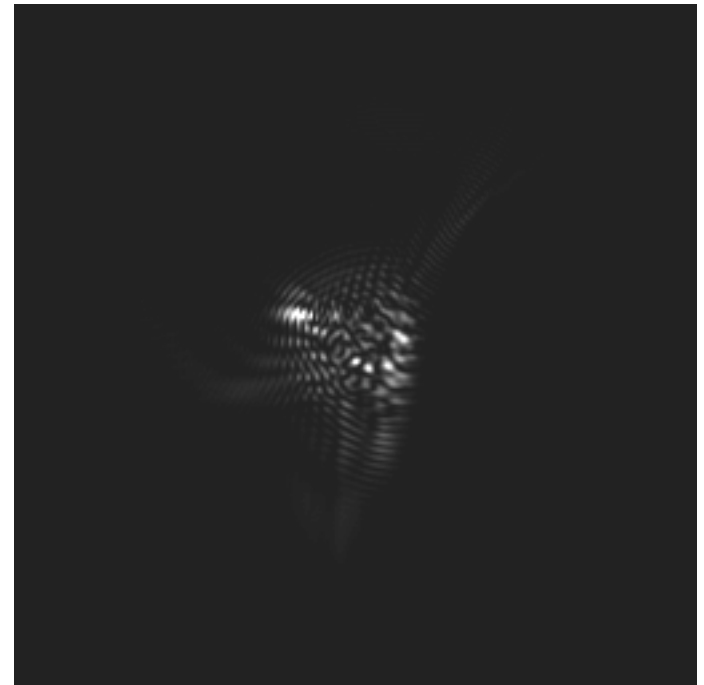
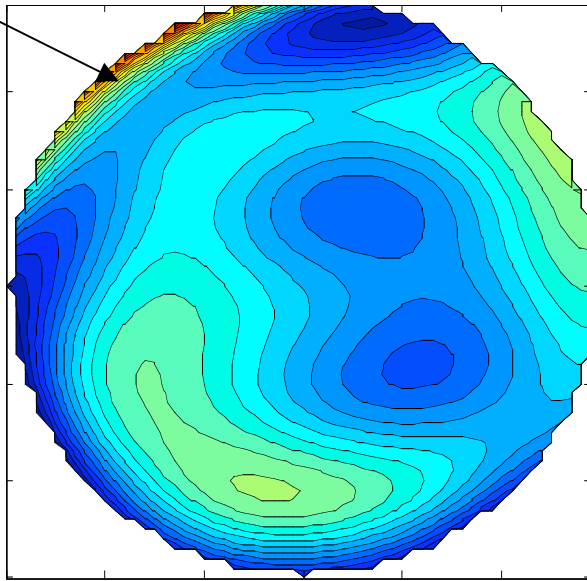


HO RMS - .123

Worst optics

6 mm pupil with contact lens

Edge of contact lens is in optical zone



HO RMS - .747, Strehl ratio: 0.012

Summaries

- Refractions will be close, but are known not to be accurate, since the refraction is based on the rms, not the retinal image (for example, Strehl ratio does not correlate with rms when aberrations are high). The eye may also have been accommodating during the measurement.
- I don't recall the special conditions under which some of the measurements were made.
- Some eyes were measured but not analyzed because their pupil was not large enough.
- All results are based on a single image only. It is recommended to take several images and average the terms together to get a good estimate of the static aberrations in the eye.

6 mm results

Name	high order rms	sphere (D)	cylinder (D)	axis (degrees)
AmirGiveon0001_6.zer	0.225	-2.51	-1.29	7
BarryCense0001_6.zer	0.281	-0.39	-0.25	162
BethBiller0002_6.zer	0.460	-2.51	-0.69	90
CharlesHansen0001_6.zer	0.291	-3.07	-0.54	20
ChrisSheehy0001_6.zer	0.331	-0.58	-0.16	35
DaneilaZanotti0003_6.zer	0.356	2.67	-2.17	45
DavidAndersen0002_6.zer	0.293	-2.73	-0.88	128
DragosMaciuca0002_6.zer	0.311	-0.77	-0.17	136
EdwardLaag0003_6.zer	0.281	-0.44	-0.38	115
EllieGates0002_6.zer	0.560	-0.57	-0.54	112
EnricoPinna0001_6.zer	0.539	-1.42	-0.37	171
JoeCarroll0002_6.zer	0.228	-0.51	-0.75	156
josephblustein0001_6.zer	0.517	-0.46	-1.22	1
KristinWalker0001_6.zer	0.578	-5.56	-1.67	26
LucasCieza0001_6.zer	0.253	-1.11	-0.47	57
LukeJohnson0001_6.zer	0.289	0.00	-0.21	61
LukeJohnsonGlassesOff0001_6.zer	0.310	0.89	-0.65	75
MariamRious0001_6.zer	0.250	-0.35	-0.60	180
MattSheehan0001_6.zer	0.244	-0.87	-0.26	6
MaximeBoccas0001_6.zer	0.335	-1.49	-0.50	5
MichaelWildenhain0001_6.zer	0.651	-4.31	-0.57	89
MichelaFernandez0003_6.zer	0.258	-0.35	-0.25	175
PascalHallibert0004_6.zer	0.278	0.36	-0.21	160
PavelHomer0001_6.zer	0.456	-0.43	-0.58	105
RuslanBelikov0002_6.zer	0.748	0.50	-0.82	143
SiddBikkannavar0001_6.zer	0.301	-0.06	-0.62	102
sriengaswamy0002_6.zer	0.373	-1.00	-0.21	13
StacieHvisc0001_6.zer	0.369	-0.31	-0.16	121
TomislavVucina0001_6.zer	0.357	-0.66	-0.27	137
TonyTra0002_6.zer	0.326	-1.58	-0.64	166
YosukiMinowa0002_6.zer	0.266	-1.93	-0.91	178

5 mm results

Name	high order rms	sphere (D)	cylinder (D)	axis (degrees)
AmirGiveon0001 5.zer	0.149	-2.46	-1.25	6
AvinashHonkin0005 5.zer	0.257	-0.19	-0.53	13
BarryCense0001 5.zer	0.211	-0.26	-0.22	152
BethBiller0002 5.zer	0.264	-2.42	-0.85	90
CharlesHansen0001 5.zer	0.205	-3.02	-0.53	20
ChrisSheehy0001 5.zer	0.241	-0.46	-0.13	44
DaneilaZanotti0003 5.zer	0.334	2.59	-2.12	45
dankund0002 5.zer	0.241	0.24	-0.76	111
DavidAndersen0002 5.zer	0.183	-2.66	-0.92	129
DragosMaciuca0002 5.zer	0.154	-0.80	-0.18	133
EdwardLaag0003 5.zer	0.185	-0.35	-0.42	126
ellie0002 5.zer	0.427	-0.47	-0.64	114
EmilyX0001 5.zer	0.264	-0.94	-0.38	167
EnricoPinna0001 5.zer	0.374	-1.20	-0.23	170
JoeCarroll0002 5.zer	0.171	-0.36	-0.78	157
JohnLawrence0001 5.zer	0.225	-1.29	-0.52	175
josephblustein0001 5.zer	0.346	-0.07	-1.40	2
KristinWalker0001 5.zer	0.361	-5.52	-1.39	31
LucasCieza0001 5.zer	0.178	-1.09	-0.60	52
LukeJohnson0001 5.zer	0.173	0.15	-0.33	65
LukeJohnsonGlassesOff0001 5.zer	0.208	1.09	-0.74	73
MariamRious0001 5.zer	0.193	-0.33	-0.68	178
markhoffman0003 5.zer	0.170	0.55	-1.05	75
MattSheehan0001 5.zer	0.123	-0.86	-0.29	180
MaximeBoccas0001 5.zer	0.250	-1.43	-0.73	1
MichaelFisher0001 5.zer	0.238	-0.17	-0.74	162
MichaelWildenhain0001 5.zer	0.428	-3.96	-0.55	97
MichelaFernandez0003 5.zer	0.108	-0.17	-0.29	177
PascalHallibert0004 5.zer	0.166	0.26	-0.18	158
PavelHomer0001 5.zer	0.232	-0.08	-0.80	101
RogerSumner 5.zer	0.161	-1.01	-0.60	96
RuslanBelikov0002 5.zer	0.395	0.54	-1.16	144
SiddBikkannavar0001 5.zer	0.222	-0.09	-0.49	105
srengaswamy0002 5.zer	0.212	-0.92	-0.47	15
StacieHvisc0001 5.zer	0.183	-0.38	-0.21	122
TomislavVucina0001 5.zer	0.205	-0.58	-0.29	151
TonyTra0002 5.zer	0.184	-1.67	-0.58	164
VidhyaVaith0001 5.zer	0.651	-3.06	-0.42	33
YaizaSanchez0003 5.zer	0.294	-0.13	-0.28	166
YosukiMinowa0002 5.zer	0.188	-2.04	-0.96	179