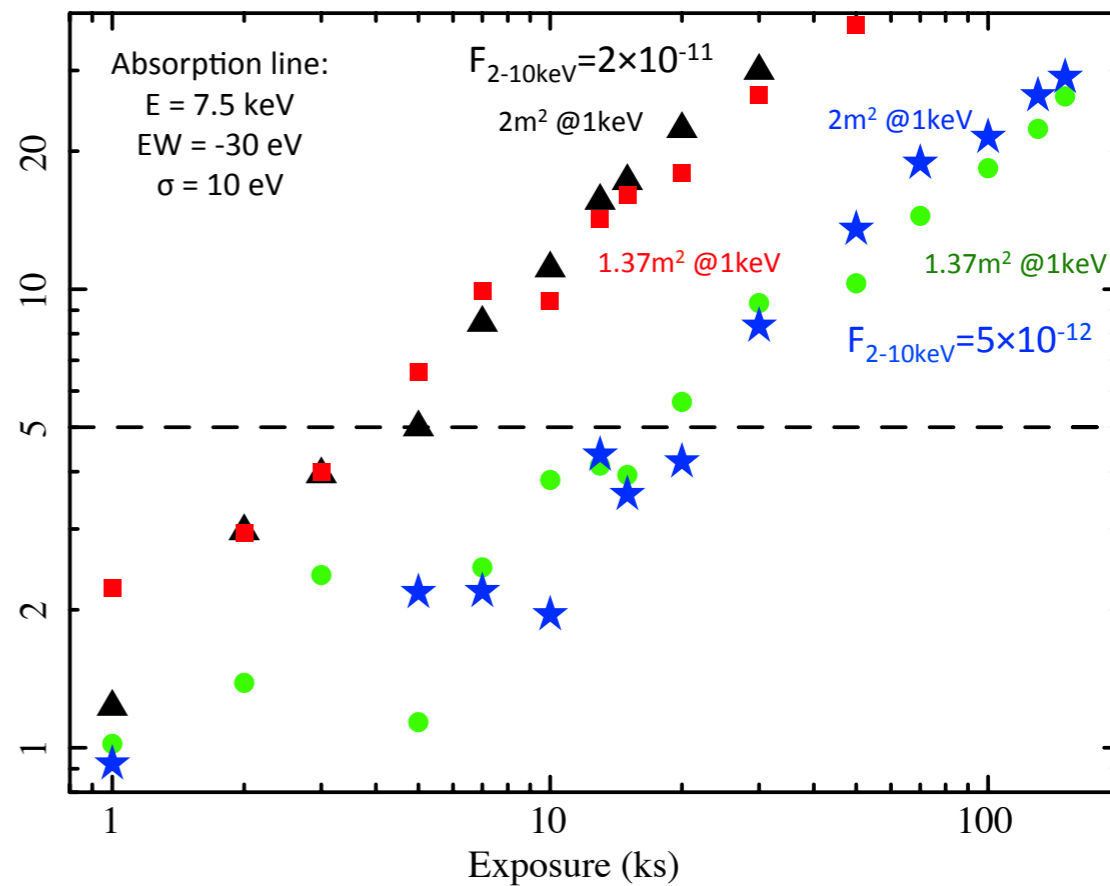
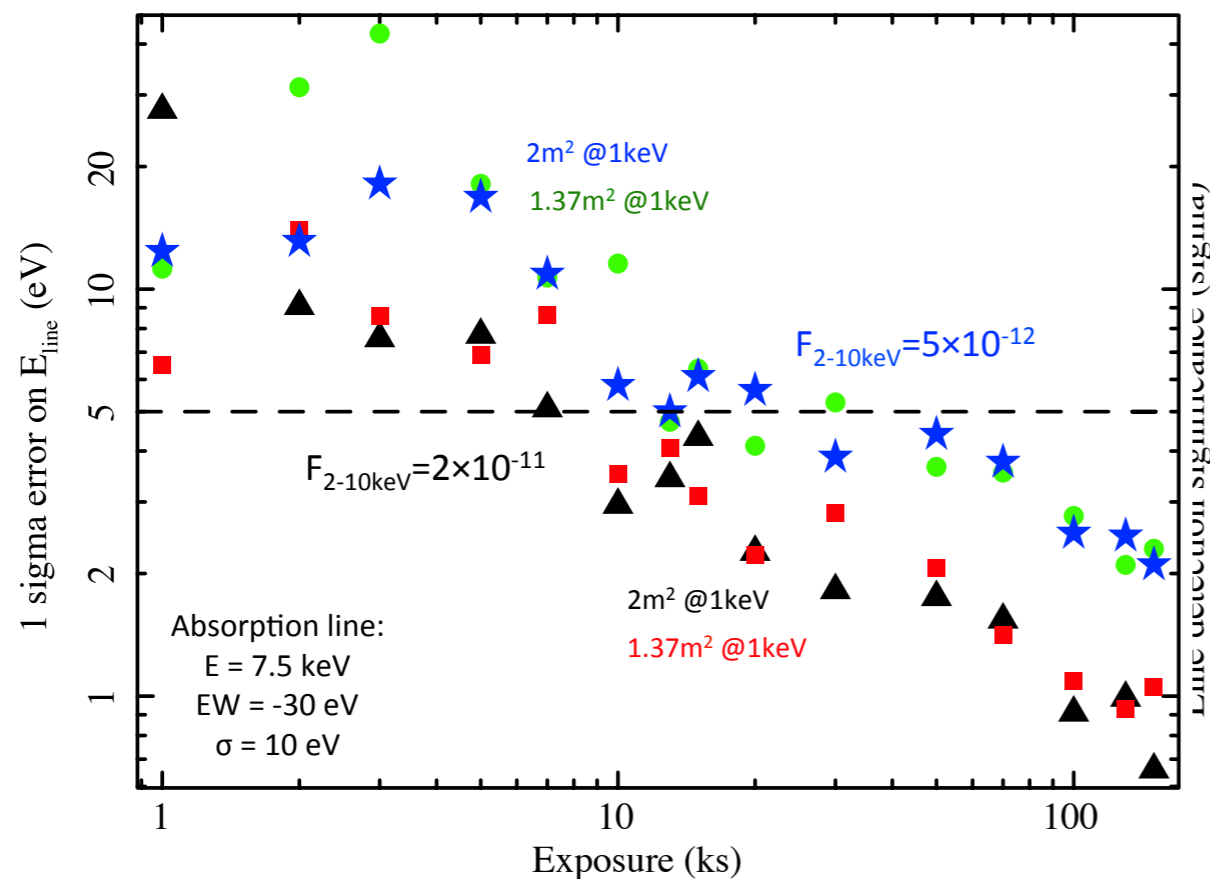


SWG 2.3 Activities

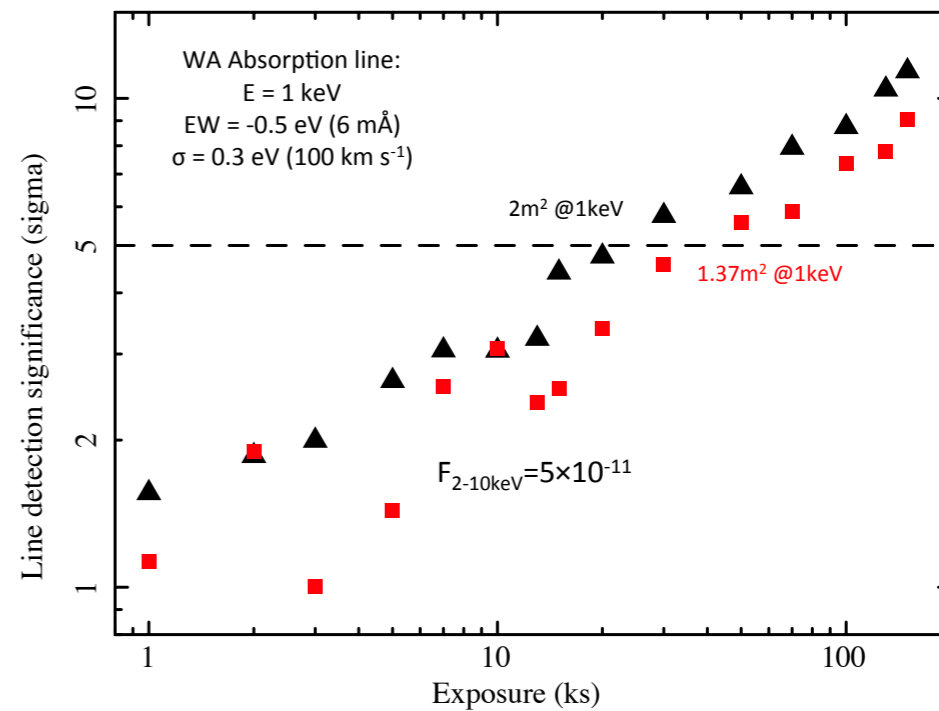
- Organized two telecons (with other co-Chairs)
 - April 8, 2015: Introduction to SWG and request for input for Athena Science Impact Exercise (ASIE)
 - September 21, 2015: Updated the SWG on the Madrid meeting, request for input for level 2a requirements
- Helped write and assess starburst targets for the SWG 2.3 input to ASIE report, determined starburst targets and exposure times for mock observing plan (MOP)
 - AGN feedback simulations were mostly done by Gabriele Ponti (co-chair of SWG 2.3), Francesco Tombesi (particularly UFO simulations), Mauro Dadina
- Attended Athena meetings in Bologna (Feb. 2015), Madrid (Sept 2015)
 - At Madrid meeting gave talk on starburst outflow science with Athena, attended end-to-end simulation group meeting prior to main meeting
 - working with end-to-end simulation group to use simulator (SIXTE) in complex case of point sources + diffuse emission in starburst galaxies
 - Remotely attended part of SWG chairs meeting at MPE, Nov. 2015
- Japanese co-Chair changed (Takeshi Tsuru -> Yuichi Terashima), at T. Tsuru's request
- Upcoming activity
 - More starburst simulation work to assess background, energy resolution calibration requirements
 - Simulation of extended AGN emission

AGN Outflow Simulations

UFOs

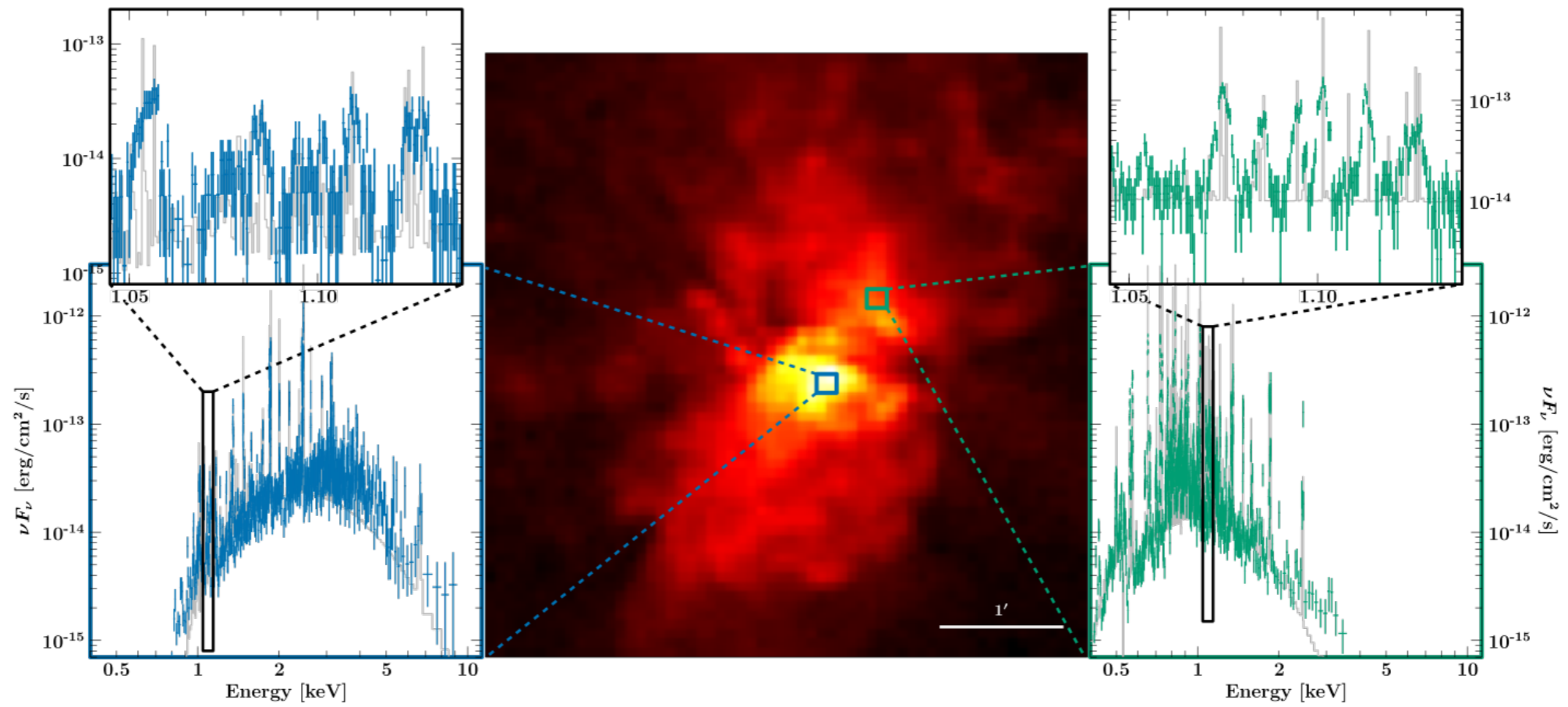


Warm Absorbers

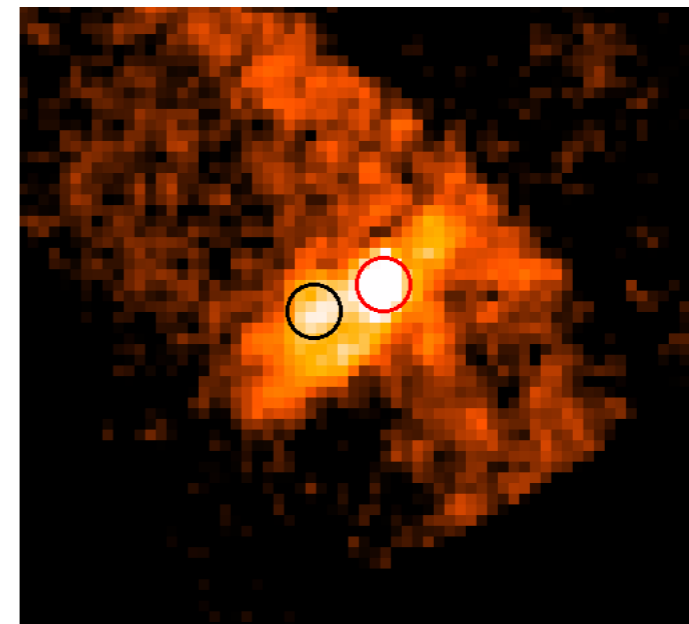
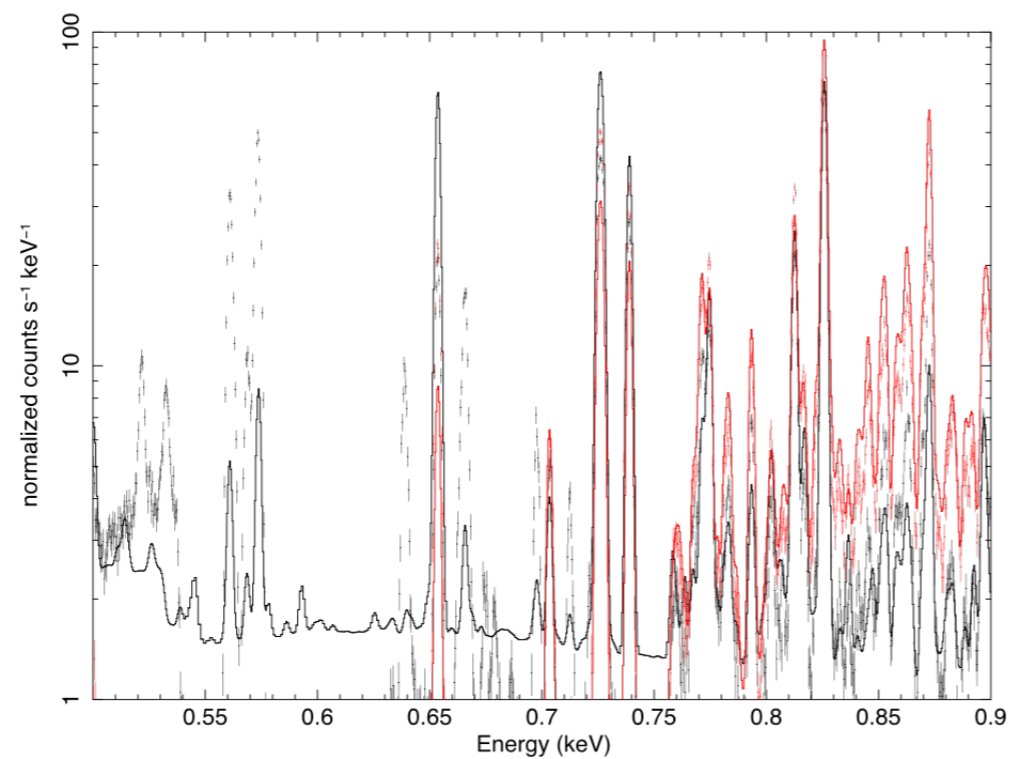


X-IFU Simulations of Starburst Galaxies

M82



NGC 253



Galaxy	D (Mpc)	Size (arcmin ²)	$\log L_X$	Flux	SB*	1.4 m ²			2.0 m ²			
						bgd. frac	5 σ exp.	Cum. exp.	SB*	bgd. frac	5 σ exp.	Cum. exp.
IRAS05189-2524	200.0	0.2 × 0.2	41.8	1e-13	21.7	0.1%	7.4	7.4	31.2	0.1%	5.1	5.1
NGC3256	35.4	1 × 1	41.6	2e-12	16.7	0.1%	9.6	17.0	24.0	0.1%	6.7	11.8
Henize2-10	9.0	0.5 × 0.5	39.5	3e-13	8.4	0.2%	19.1	36.0	12.1	0.2%	13.2	25.0
NGC3310	19.8	0.7 × 1	40.5	7e-13	6.3	0.3%	25.3	61.3	9.1	0.3%	17.5	42.6
VV114	86.0	0.5 × 0.5	41.3	2e-13	6.1	0.3%	26.4	87.7	8.7	0.3%	18.3	60.9
IRAS23128-5919	210.0	0.3 × 0.3	41.5	6e-14	4.8	0.4%	33.3	121.0	6.9	0.3%	23.1	84.0
IRAS20551-4250	200.0	0.3 × 0.4	41.5	6e-14	3.3	0.5%	48.5	169.5	4.8	0.5%	33.6	117.7
NGC1482	22.0	0.8 × 1.6	40.6	6e-13	3.3	0.5%	48.5	218.0	4.8	0.5%	33.7	151.3
NGC7714	37.0	0.5 × 0.5	40.3	1e-13	3.1	0.5%	51.1	269.1	4.5	0.5%	35.5	186.8
IRAS17208-0014	200.0	0.4 × 0.4	41.4	5e-14	2.2	0.8%	74.2	343.3	3.1	0.8%	51.5	238.3
Haro11	88.0	0.5 × 0.5	40.9	8e-14	2.1	0.8%	76.0	419.3	3.0	0.8%	52.8	291.1
NGC4214	2.9	1 × 1	38.5	3e-13	2.0	0.8%	79.2	498.5	2.9	0.8%	55.0	346.1
M83	4.0	6 × 6	40.3	1e-11	1.9	0.9%	86.0	584.5	2.7	0.9%	59.7	405.8
NGC3690	44.0	1.5 × 1.2	41.0	5e-13	1.8	0.9%	88.4	672.9	2.6	0.9%	61.3	467.1
NGC5253	3.2	1 × 0.5	38.2	1e-13	1.7	1.0%	96.2	769.1	2.4	1.0%	66.8	534.0
NGC6240	113.0	2 × 2	42.1	8e-13	1.4	1.2%	112.8	881.9	2.0	1.1%	78.3	612.3
Mrk273	176.0	0.7 × 1	41.7	1e-13	1.3	1.3%	126.0	1007.9	1.8	1.3%	87.4	699.7
NGC3077	3.6	1 × 0.5	38.1	8e-14	1.1	1.6%	153.3	1161.2	1.5	1.6%	106.5	806.2
NGC1705	5.1	0.5 × 0.5	38.1	4e-14	1.1	1.6%	153.9	1315.1	1.5	1.6%	106.8	913.0
M82	3.6	14 × 20	40.8	4e-11	0.9	1.8%	171.3	1486.4	1.4	1.7%	119.0	1031.9
Arp220	84.0	0.6 × 1.3	41.0	1e-13	0.9	1.9%	175.7	1662.1	1.3	1.8%	122.0	1153.9
NGC4449	2.9	3 × 3	39.0	1e-12	0.8	2.1%	196.4	1858.5	1.2	2.0%	136.3	1290.2
NGC1569	2.2	1.7 × 1.7	38.3	3e-13	0.8	2.2%	208.8	2067.3	1.1	2.1%	145.0	1435.2
Mrk231	200.0	1 × 1	41.7	1e-13	0.7	2.4%	227.1	2294.4	1.0	2.3%	157.6	1592.9
NGC2146	11.6	2.6 × 3.6	40.1	8e-13	0.6	2.9%	278.1	2572.5	0.8	2.8%	193.1	1786.0
NGC6810	27.1	1.8 × 2.4	40.2	2e-13	0.3	6.0%	596.3	3168.8	0.4	5.8%	414.0	2200.0
NGC3079	17.0	4.5 × 5.7	40.5	9e-13	0.3	6.5%	651.7	3820.5	0.3	6.3%	452.4	2652.4
NGC4631	7.5	9.2 × 4.6	39.9	1e-12	0.2	8.4%	852.6	4673.1	0.3	8.1%	591.9	3244.3
NGC4666	20.2	3.5 × 3.5	40.1	3e-13	0.2	9.8%	1006.7	5679.8	0.2	9.4%	698.9	3943.3
NGC1511	17.5	2.2 × 1.6	39.4	7e-14	0.1	11.4%	1193.1	6873.0	0.2	11.0%	828.3	4771.6
NGC3628	10.0	3.7 × 6.1	39.7	5e-13	0.1	11.4%	1195.6	8068.6	0.2	11.0%	830.1	5601.7
NGC253	2.6	16 × 24	39.7	7e-12	0.1	12.6%	1343.8	9412.5	0.2	12.2%	933.0	6534.7
NGC5775	26.7	4 × 3	40.2	2e-13	0.1	14.4%	1571.3	10983.8	0.1	13.9%	1090.9	7625.6
NGC3556	14.1	6.5 × 3.5	39.5	1e-13	0.1	31.4%	4260.8	15244.6	0.1	30.5%	2958.1	10583.7

* (counts s⁻¹ arcmin⁻²)

Exposures in ks