

An analysis of UKIDSS publications

Steve Warren Imperial College London

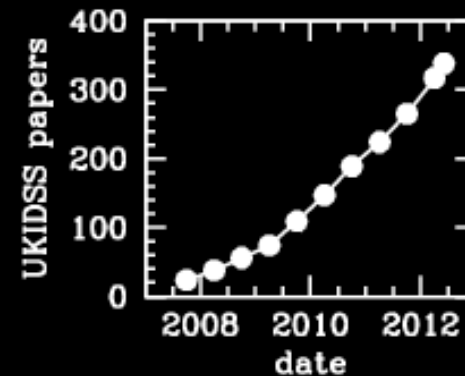
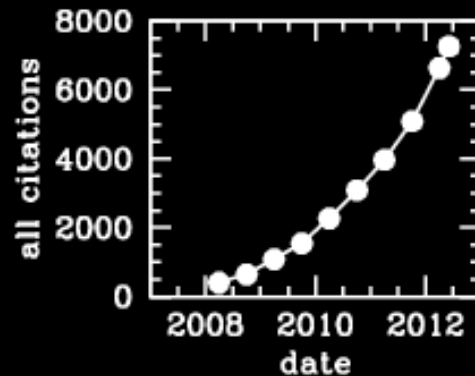
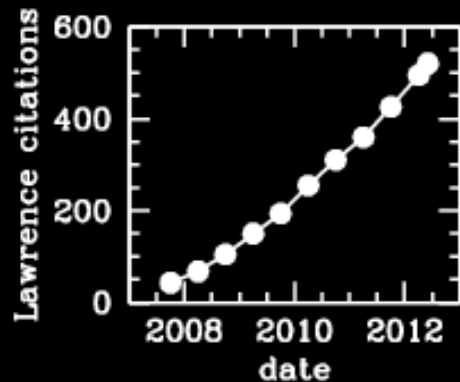
with help from Daniel Mortlock

How papers are selected

- Science results derived in whole or in part from UKIDSS data directly accessed from the archive (later divided by survey)
- Science results from primary follow-up observations in a programme that is identifiable as a UKIDSS programme (e.g. Spitzer obs of coolest brown dwarfs) (later divided by survey)
- Papers describing the survey (e.g. calibration, archive, data releases) (later classed general)
- Feasibility study of science that could be achieved using UKIDSS data (e.g. Deacon and Hambly) (later classed general)

Current status (end May 2012)

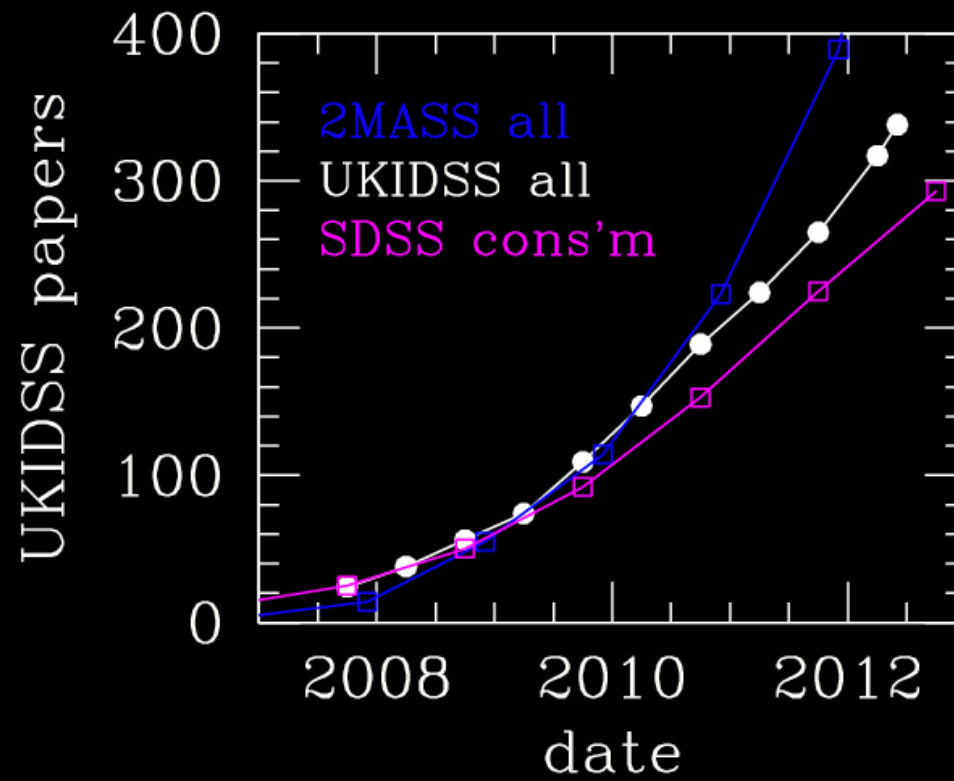
summary May 2012



- Census date 28 May 2012
- Lawrence et al. 520 citations
- Total citations 7251
- Total papers 338
- h-index 41
- 1611 total authors
- 237 first authors

Comparison 2MASS, SDSS

summary May 2012



Survey Olympic medals

- **Bronze**

- Awarded for 10,000 citations
- Currently 7251
- Not there yet



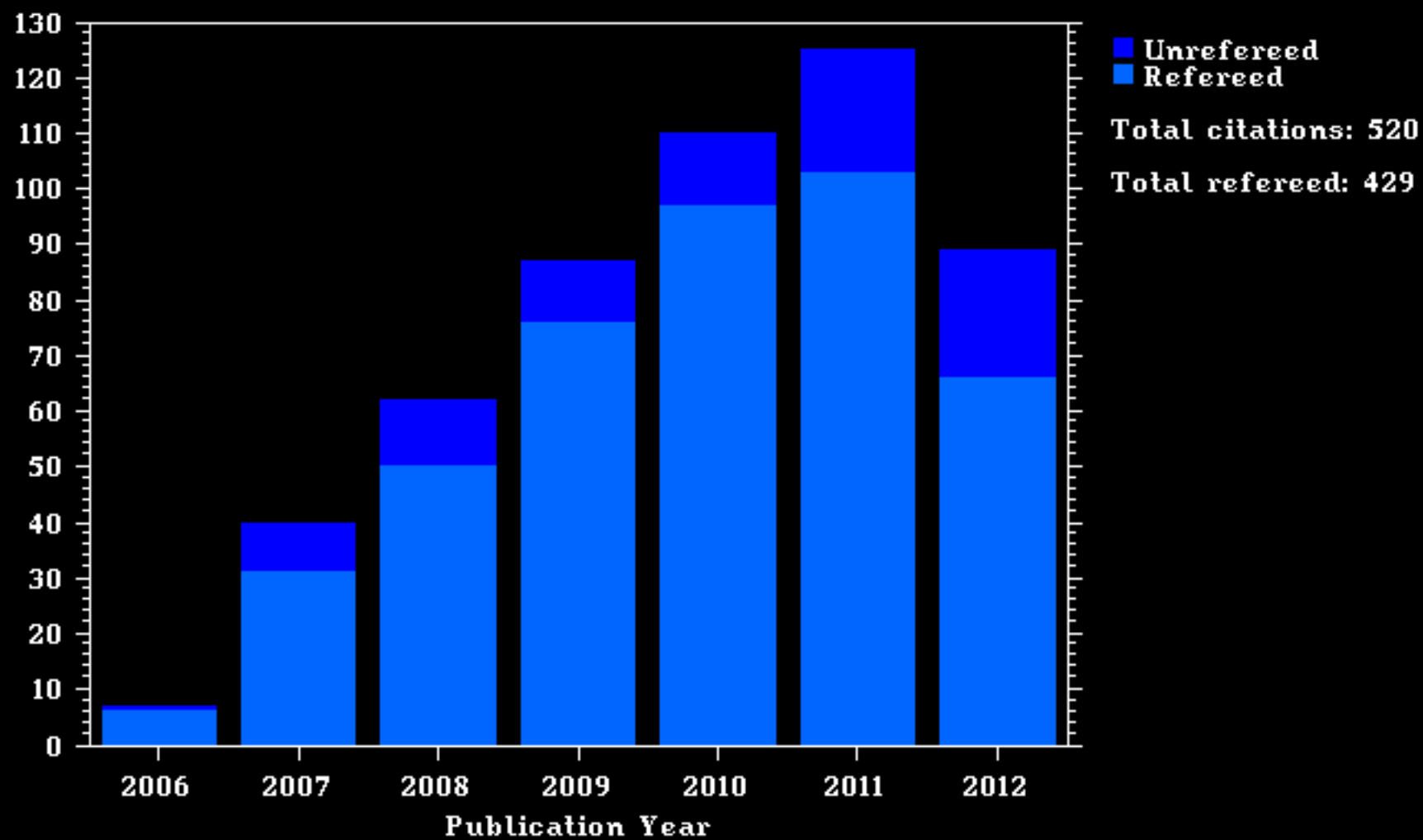
- **Silver**

- Main survey paper reaching 1,000 citations
- Currently 520
- York 3325/750 (SDSS), Skrutskie 2487/0 (2MASS)
- Should just get there

- **Gold (2MASS, SDSS)**

- h-index of 100
- Currently 41
- Won't get there

Citations/Publication Year for 2007MNRAS.379.1599L



Survey comparisons

		planned		legacy		total	
	papers	citations	papers	citations	papers	citations	citations /papers
general	9	1394	1	11	10	1405	
UDS	23	709	37	935	60	1644	27.4
LAS	35	857	91	1174	126	2031	16.1
DXS	4	66	46	1165	50	1231	24.6
GCS	14	242	19	162	33	404	12.2
GPS	10	195	49	341	59	536	9.1
total	95	3463	243	3788	338	7251	21.5

Survey comparisons

- All surveys have been productive, LAS the most so
- UDS and DXS have high citations per paper
- Legacy science has produced >2x as many papers as planned UKIDSS science
- Planned science has higher citations per paper than legacy science

UKIDSS publications winners

- Most citations any paper: **520**
- Lawrence et al. 2005
- Most citations science paper: **206**
- Perez-Gonzales et al. 2008
- Most citations/yr science paper: **84**
- Mortlock et al. 2011
- Most UKIDSS citations individual: **1849**
- Seb Foucaud
- Most UKIDSS papers: **35**
- Jim Dunlop
- Most UKIDSS first-author papers: **14**
- Nicolas Lodieu

THE STELLAR MASS ASSEMBLY OF GALAXIES FROM $z = 0$ TO $z = 4$: ANALYSIS OF A SAMPLE SELECTED IN THE REST-FRAME NEAR-INFRARED WITH *SPITZER*

PABLO G. PÉREZ-GONZÁLEZ,^{1,2} GEORGE H. RIEKE,³ VÍCTOR VILLAR,¹ GUILLERMO BARRO,¹
MYRA BLAYLOCK,³ EIICHI EGAMI,³ JESÚS GALLEGO,¹ ARMANDO GIL DE PAZ,¹
SERGIO PASCUAL,¹ JAIME ZAMORANO,¹ AND JENNIFER L. DONLEY³

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ABSTRACT

Using a sample of $\sim 28,000$ sources selected at $3.6\text{--}4.5\ \mu\text{m}$ with *Spitzer* observations of the Hubble Deep Field North, the Chandra Deep Field South, and the Lockman Hole (surveyed area $\sim 664\ \text{arcmin}^2$), we study the evolution of the stellar mass content of the universe at $0 < z < 4$. We calculate stellar masses and photometric redshifts, based on ~ 2000 templates built with stellar population and dust emission models fitting the ultraviolet to mid-infrared spectral energy distributions of galaxies with spectroscopic redshifts. We estimate stellar mass functions for different redshift intervals. We find that 50% of the local stellar mass density was assembled at $0 < z < 1$ (average star formation rate [SFR] $0.048\ M_{\odot}\ \text{yr}^{-1}\ \text{Mpc}^{-3}$), and at least another 40% at $1 < z < 4$ (average SFR $0.074\ M_{\odot}\ \text{yr}^{-1}\ \text{Mpc}^{-3}$). Our results confirm and quantify the “downsizing” scenario of galaxy formation. The most massive galaxies ($M > 10^{12.0}\ M_{\odot}$) assembled the bulk of their stellar content rapidly (in 1–2 Gyr) beyond $z \sim 3$ in very intense star formation