CFHTLS カタログ

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CFHTLS: Canada-France-Hawaii Telescope Legacy Survey

	探査面積	フィルター	深さ(80% completeness limit, point source)
DEEP Field	~4平方度	u, g, r, i , z	i~25.4
WIDE Field	~150平方度	u, g, r, i , z	i~24.8

Unified Catalogs

Catalogues

The following table provides a few statistics about the catalogues and links to the ASCII versions.

Survey	Selection Filter	Number of rows	Area (Deg^2)	Masked Area (Deg^2)	Full catalogue	Concise catalogue
Deep	U	990 000	4.02704	3.64042	D.U.cat.gz (498Mb)	D.U.con.cat.gz (140Mb)
Deep	G	1 600 000	4.02704	3.64042	D.G.cat.gz (768Mb)	D.G.con.cat.gz (217Mb)
Deep	R	1 600 000	4.02704	3.64042	D.R.cat.gz (768Mb)	D.R.con.cat.gz (217Mb)
Deep	I	1 600 000	4.02704	3.64042	D.I.cat.gz (743Mb)	D.I.con.cat.gz (210Mb)
Deep	Z	1 100 000	4.02704	3.64042	D.Z.cat.gz (529Mb)	D.Z.con.cat.gz (150Mb)
Wide	U	19 000 000	152.33481	148.32196	W.U.cat.gz (8.6Gb)	W.U.con.cat.gz (2.4Gb)
Wide	G	32 000 000	152.33481	146.20048	W.G.cat.gz (15Gb)	W.G.con.cat.gz (4.1Gb)
Wide	R	28 000 000	152.33481	144.69447	W.R.cat.gz (13Gb)	W.R.con.cat.gz (3.6Gb)
Wide	I	28 000 000	152.33481	144.80211	W.I.cat.gz (13Gb)	W.I.con.cat.gz (3.6Gb)
Wide	Z	19 000 000	152.33481	145.18961	W.Z.cat.gz (8.8Gb)	W.Z.con.cat.gz (2.5Gb)

The catalogues were generated with SExtractor

https://www.cadc-ccda.hia-iha.nrc-cnrc.gc.ca/en/megapipe/cfhtls/uc.html

全領域の情報をとってきたい人にとっては便利

Catalog Queries

CFHTLS Catalog queries

This page allows you query the catalogues generated from CFHTLS images. Documentation for using this page can be found on the CFHTLS catalogue query documentation page. Documentation on the catalogues themselves can be found on the unified catalogues page.

[Submit Query] [Reset]

Submission method: [Synchronous (small queries) ▲▼]

Return format: [ASCII ▲▼]

Query: This box shows the query (in ADQL) that will be executed. You can use the other controls on this page to set the query, or modify this text directly for greater control.

```
SELECT
TOP 10
  cfhtlsID
FROM
  cfht.deepi
WHERE
  i_MAG_AUTO <= i_maglimit
  AND i_dubious =0
```

[Submit Query] [Reset]

Survey [deep ▲▼] Selection filter [i-band ▲▼]

https://www.cadc-ccda.hia-iha.nrc-cnrc.gc.ca/en/megapipe/cfhtls/cq.html
一部の領域の一部の情報をとってきたい人に便利

Image cutout service

![MEGA PIPE] **The MegaPipe image stacking pipeline**

MegaPipe image cutout service

This page allows you to extract postage stamp cutout images from the MegaPipe images by specifying their coordinates. Links to cutouts from all available bands will be returned.

Coordinates can be entered in sexigesmial format (hh:mm:ss or similar) or decimal format (dd.ddddd). A 2000.0 equinox is assumed.

Object name:

[   ]

[Resolve]

Right Ascension:

[   ]

Declination:

[   ]

Image size in pixels:

[128] Maximum 256 pixels

[Get cutout]

[Reset]

ターゲットの画像チェックなどに便利

https://www.cadc-ccda.hia-iha.nrc-cnrc.gc.ca/en/megapipe/access/cut.html

Mask Information
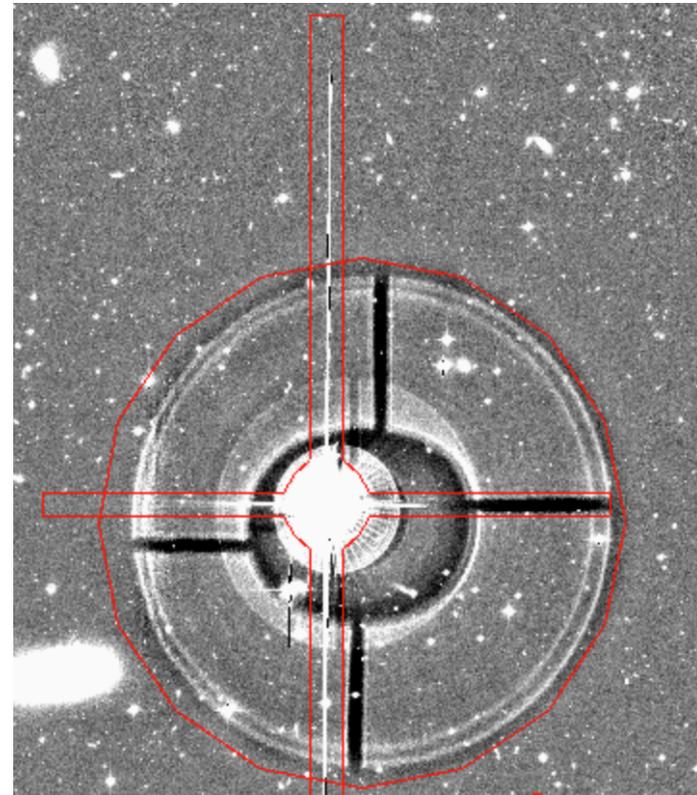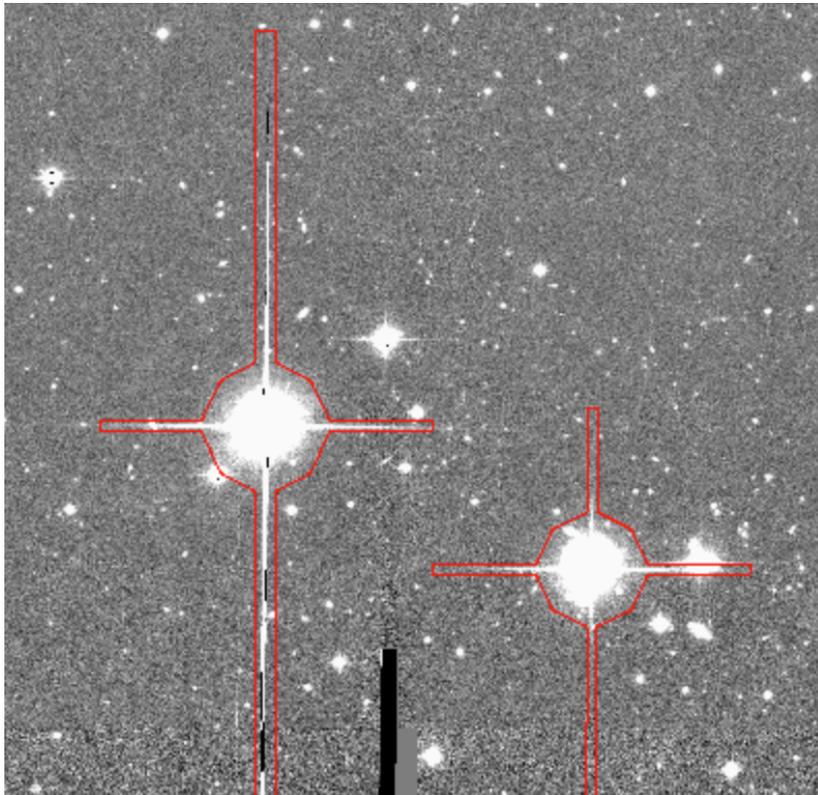
The masks are in format of ds9 region files. They are given in terms of RA and Dec in J2000.0 coordinates. Each line starts with the word "polygon" followed by of a list of vertexes. The masks for each survey can be downloaded as a tarball using the following links:

- Deep: D.mask.rd.reg.tar.gz
- Wide: W.mask.rd.reg.tar.gz

https://www.cadc-ccda.hia-iha.nrc-cnrc.gc.ca/en/megapipe/cfhtls/uc.html

Expoture Time, Magnitude Limit

Wide Fields

Field	Band	Number of exposures	Total Exposure Time (secs)	Exposures used	Magnitude Limit	Image Quality
W1+0+0	U	5	3000	W1+0+0.U.list	26.1	0.83"
	G	6	3000	W1+0+0.G.list	26.4	0.86"
	R	5	2180	W1+0+0.R.list	26.0	0.75"
	I	10	6150	W1+0+0.I.list	25.8	0.74"
	Z	6	3600	W1+0+0.Z.list	24.0	0.96"
W1+0+1	U	5	3000	W1+0+1.U.list	25.7	1.01"
	G	5	2500	W1+0+1.G.list	26.3	0.91"
	R	7	3180	W1+0+1.R.list	26.1	0.83"
	I	7	4305	W1+0+1.I.list	26.0	0.64"
	Z	11	6600	W1+0+1.Z.list	24.9	0.78"
W1+0+2	U	5	3000	W1+0+2.U.list	25.9	0.97"
	G	7	3500	W1+0+2.G.list	26.5	0.92"
	R	5	2180	W1+0+2.R.list	25.8	0.86"

http://www.cadc-ccda.hia-iha.nrc-cnrc.gc.ca/en/megapipe/cfhtls/input.html

Photometric Redshifts

Download files

For your convenience, here are links to the photometric redshift files.

Read this file first!!

A header file explaining the contents of the photometric redshift files **can be found here**.

||||

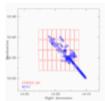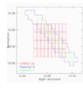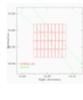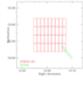| Field	Photometric redshifts	Probability distribution function
W1	photozCFHTLS-W1_270912.out.gz	pdz_W1_270912_part1.fits.gz,pdz_W1_270912_part2.fits.gz
W2	photozCFHTLS-W2_270912.out.gz	pdz_W2_270912.fits.gz
W3	photozCFHTLS-W3_270912.out.gz	pdz_W3_270912.fits.gz
W4	photozCFHTLS-W4_270912.out.gz	pdz_W4_270912.fits.gz

Contact information

If you have any questions about downloading these files please contact us at terapix@iap.fr

If you have any questions about the photometric redshifts please contact Olivier Ilbert: olivier dot ilbert at oamp.fr .

http://terapix.calet.org/terapix.iap.fr/article4f7b.html?id_article=841

Data at other wavelengths

Field	Wavelength	Telescope/Instrument	Band(s)	Depth	Area of overlap	Availability	Notes
D3	X-ray	Chandra	0.5-10keV	8.2e-16 egs/s/cm^2 1.1e-16 egs/s/cm^2		AEGIS Chandra data	AEGIS Chandra additional informaton See Nandra et al. (2005) part of AEGIS.
D3	UV	GALEX	NUV (150nm) FUV (225nm)	NUV~25 FUV~25		AEGIS GALEX data	Galex UIS part of AEGIS.
D3	optical	HST/ACS	V (F606W) and I (F814W)	V=28.7 I=28.1		AEGIS ACS images and catalogues	part of AEGIS. See Davis et al. (2007).
D3	optical	HST/WFPC	F606W,F814W	R~24		DEEP WFPC images	There are also a number of parallel WFPC observations
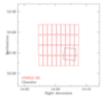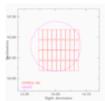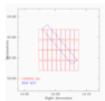
|							
D3	Near IR	Palomar	J/K	J=22(?) K=22.5		AEGIS JK-band catalogue	part of AEGIS. See Bundy et al. (2006).
D3	Far IR	Spitzer IRAC and MIPS	3.6µm,4.5µm,5.8µm,8µm, 24µm,70µm,160µm	3.6µm=21 (~0.5µJy) 4.5µm=20 (~0.5µJy) 5.8µm=19 (~2.7µJy) 8.0µm=18 (~2.7µJy) all magnitudes are in the Vega system		AEGIS IRAC data. AEGIS MIPS data.	part of AEGIS. See Fazio et al. (2004) and Huang et al. (2005).
D3	sub-mm	JCMT SCUBA	850µm	3.5mJy			Images and catalogues used to be available on-line. Contact Kristen Coppin. See Coppin et al. (2005)
D3	radio	VLA	6cm 21cm	0.55mJy 100 µJy		VLA 6cm images and VLA 21cm catalogue	part of AEGIS See Willner et al. (2006) and Ivison et
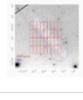
X-ray, UV, optical, near-IR, far-IR, sub-mm, radio

http://www.cadc-ccda.hia-iha.nrc-cnrc.gc.ca/en/megapipe/cfhtls/cov.html

CFHTLS wide dataを用いた研究

High-z faint QSO surveys, Ikeda+17
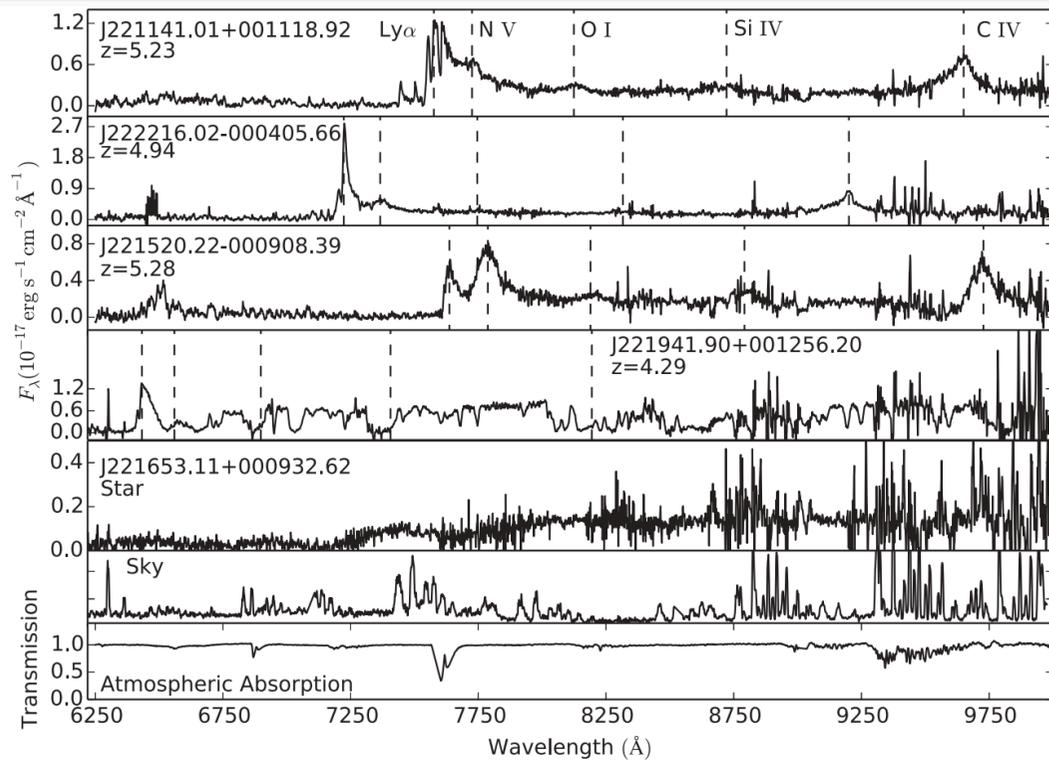
z~5 faint quasar spectra

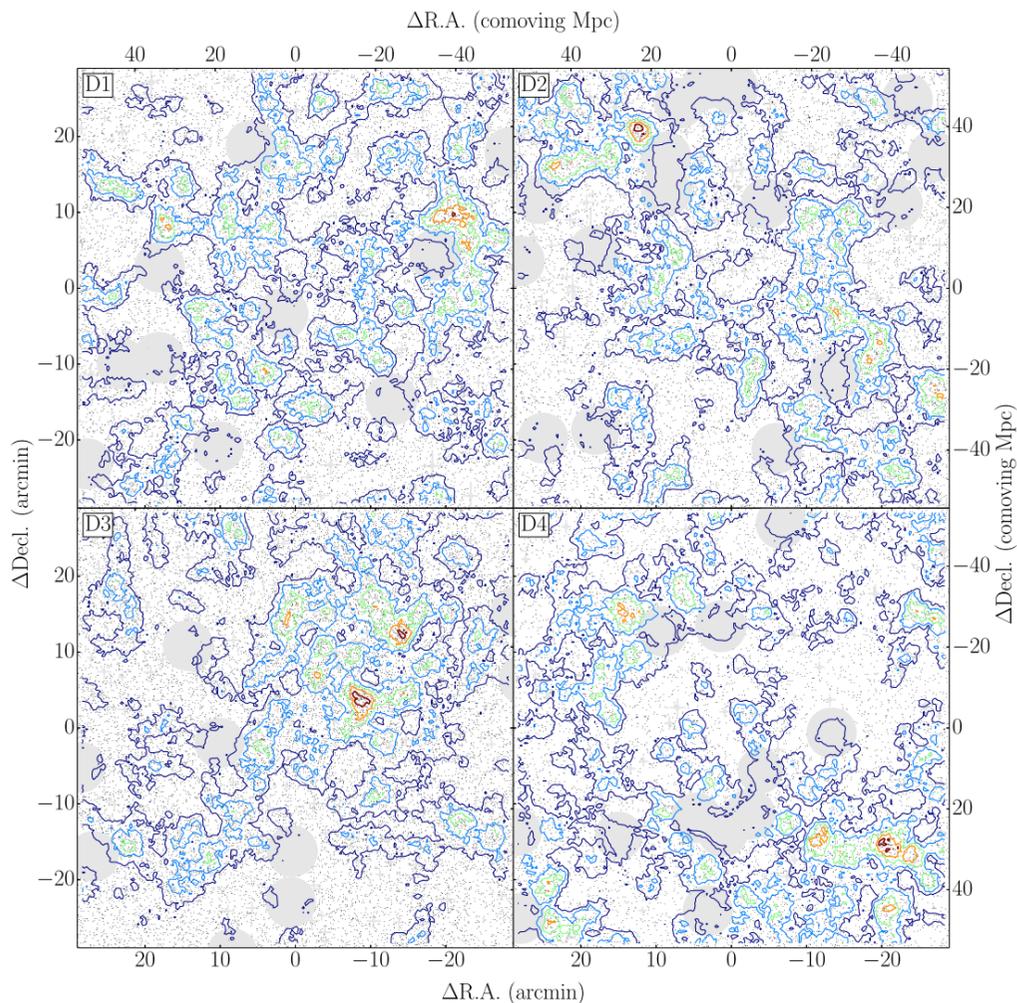**QSO Luminosity Function, Mcgreer+17**
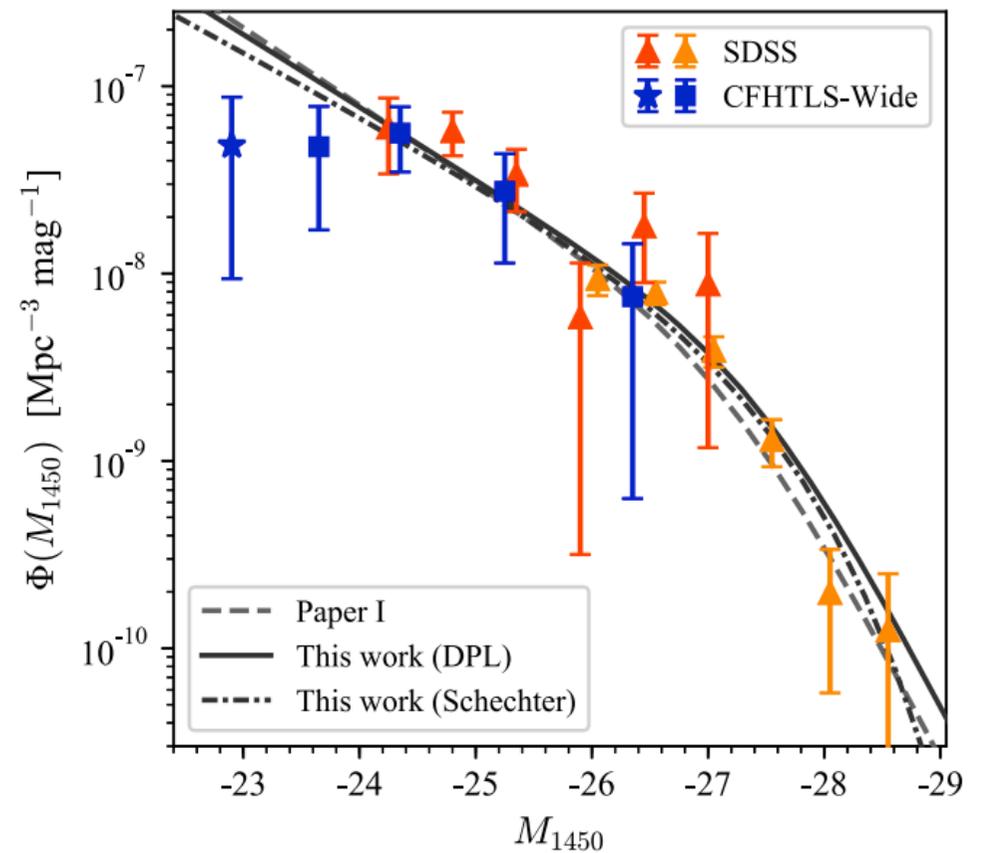
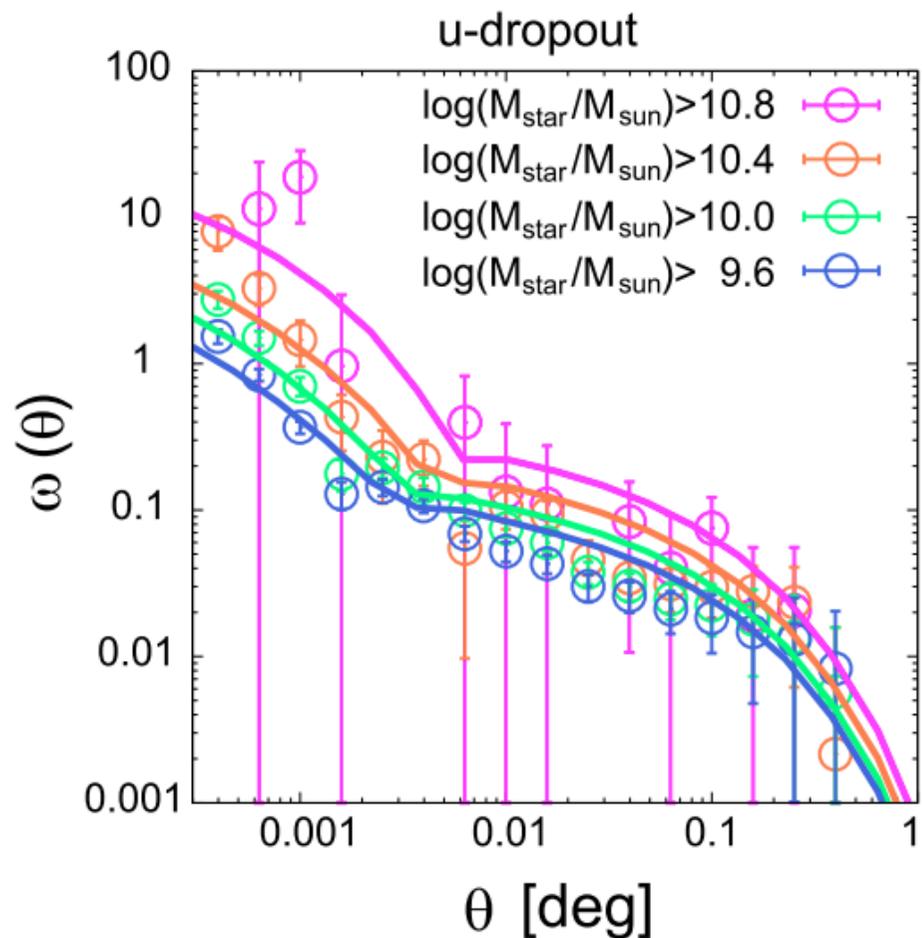**Then faint end of QLF at z~5**

CFHTLS deep dataを用いた研究

Protocluster search, Toshikawa+16

LBG ACF, Ishikawa+17

Sky distribution of u-dropout galaxies (dots) with surface number density contours (lines)

Angular correlation function of z~3 LBG

CFHTLS catalogについて

- Cutout image及びカタログ化までされたデータが既に あったので、容易に自分の行いたい研究可能

- maskやmagnitude limitなどの情報もあり

- Galactic extinctionの情報は自分でとってくる必要あり

- CFHTLSデータ領域にある他波長データ一覧以外にクロス マッチされたデータもあるとさらに便利

アーカイブや公開データに必要とされる要件
など

- 解析済み画像、photometric catalog、photo-z catalog (もし可能なら)、random catalog #depth, seeingの情報も欲しい

- データの置かれ方や品質評価はHSC PDRと同程度であれば（個人的には）OK

- 他波長のデータを容易に取得できると、さらに良い

- 分光済みかどうかの情報、分光済みの場合は、スペクトルも取得可能であれば、非常に良い