Filter Profile Service

An experiment about filter standardization in the VO

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Filter Profile Service

- An experiment about filter standardization in the VO. (first version)

- Provides a way to retrieve information about filters.

- VO service + web interface.

- Easily maintainable.

- Around 1500 filters.

Filter Profile Service

An experiment about filter standardization in the VO

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VO Service   Browse   Search   New Filter

svo.laeff   LogOut

Group
2MASS
• 2MASS
AAO
CAHA
CFHT
CTIO
DENIS
GALEX
Gemini
Generic
Geneva
Hipparcos
INT
IRAS
IUE
Keck
KPNO
LaSilla
NIRT
NOT
Paranal
SAO
SLOAN
Spitzer
Subaru
TNG
TYCHO
UKIRT

FilterId	λ_{mean}	λ_{eff}	λ_{min}	λ_{max}	Δ_{eff}	F_0 (Jy)	Facility	Instrument	Short. Descrip
2MASS/2MASS.H	16620	16620	14787	18231	2509.4	1024.0	2MASS		2MASS H
2MASS/2MASS.J	12350	12350	10806	14068	1624.1	1594.0	2MASS		2MASS J
2MASS/2MASS.Ks	21590	21590	19544	23552	2618.9	666.8	2MASS		2MASS Ks

Filter Profile Service: Browse

FilterId	λmean	λeff	λmin	λmax	Δeff	F$_0$ (Jy)	Facility	Instrument	Short. Descrip
2MASS/2MASS.H	1662.0	1662.0	14787	18231	2509.4	1024.0	2MASS		2MASS H
2MASS/2MASS.J	1235.0	1235.0	10806	14068	1624.1	1594.0	2MASS		2MASS J

Group
- **2MASS**
  - • **2MASS**
- AAO
- CAHA
- CFHT
- CTIO
- DENIS
- GALEX
- Gemini
- Generic
- Geneva
- Hipparcos
- INT
- IRAS
- IUE
- Keck
- KPNO
- LaSilla
- NIRT
- NOT
- Paranal
- SAO
- SLOAN
- Spitzer
- Subaru
- TNG
- TYCHO
- UKIRT
- WHT

(edit)   (delete)   X

2MASS/2MASS.J

Filter ID: 2MASS/2MASS.J
Description: 2MASS J
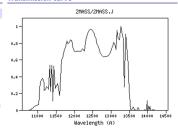Phot.Sys.:   2MASS
Obs. facility: 2MASS
Instrument: ------

Calibration properties

Property	Calculated	Specified	Unit
λmean (?) :	12410.5694812	12350	(Angstrom)
λcen (?) :	12385.4277298	-------	(Angstrom)
λeff (?) :	12285.3758018	12350	(Angstrom)
λpeak (?) :	13260	-------	(Angstrom)
λmin (?) :	10806.4705898	-------	(Angstrom)
λmax (?) :	14067.9746836	-------	(Angstrom)
Widtheff (?) :	1624.14721592	-------	(Angstrom)
FWHM (?) :	2138.83173422	-------	(Angstrom)
Zero Point (?) :	3.14276838794e-10	3.129e-10	(erg/cm2/s/A)
Zero Point (?) :	1582.22616419	1594	(Jy)

Reference for calibration: Cohen 2003

Transmission curve
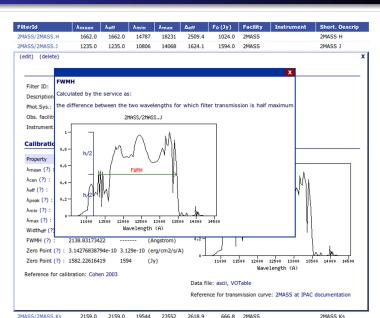

2MASS/2MASS.J

Data file: ascii, VOTable

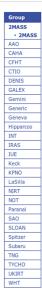Reference for transmission curve: 2MASS at IPAC documentation

| 2MASS/2MASS.Ks | 2159.0 | 2159.0 | 19544 | 23552 | 2618.9 | 666.8 | 2MASS | | 2MASS Ks |

Filter Profile Service: Edit

Group
2MASS
• 2MASS
AAO
CAHA
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DENIS
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Geneva
Hipparcos
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TNG
TYCHO
UKIRT
WHT

FilterId	λ_{mean}	λ_{eff}	λ_{min}	λ_{max}	Δ_{eff}	F_0 (Jy)	Facility	Instrument	Short. Descrip
2MASS/2MASS.H	1662.0	1662.0	14787	18231	2509.4	1024.0	2MASS		2MASS H
2MASS/2MASS.J	1235.0	1235.0	10806	14068	1624.1	1594.0	2MASS		2MASS J

X

Filter ID

Filter ID: 2MASS/2MASS.J

Transmission curve

Data file: (OK) [   ] Browse... (select a file)

Reference:

URL: http://www.ipac.caltech.edu/2mass/releases/allsky/doc/sec6_4a.html#rsr

Text: 2MASS at IPAC documentation

Filter description

Phot.Sys.:	2MASS ▼	[ ]	(select a previously defined value or define a new one)
Obs. facility:	2MASS ▼	[ ]	(select a previously defined value or define a new one)
Instrument:	--- ▼	[ ]	(select a previously defined value or define a new one)

Short descrip.: 2MASS J

Comments:

Calibration properties

These values will be calculated from the filter transmision curve (in some cases using Vega spectrum too).

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Filter Profile Service: Edit

Calibration properties

These values will be calculated from the filter transmision curve (in some cases using Vega spectrum too)
Click on the (?) symbols to see how these values ar calculated by the system.
If you prefer other values to be used instead of those calculated by the service, please specify them
(If you specify your own values, please include a reference to those data).

Property	Calculated	Specified	Unit
λ_{mean} (?) :	12410.5694812	12350	(Angstrom)
λ_{cen} (?) :	12385.4277298		(Angstrom)
λ_{eff} (?) :	12285.3758018	12350	(Angstrom)
λ_{peak} (?) :	13260		(Angstrom)
λ_{min} (?) :	10806.4705898		(Angstrom)
λ_{max} (?) :	14067.9746836		(Angstrom)
Width$_{eff}$ (?) :	1624.14721592		(Angstrom)
FWMH (?) :	2138.83173422		(Angstrom)
Zero Point (?) :	3.14276838794e-10	3.129e-10	(erg/cm2/s/A)
Zero Point (?) :	1582.22616419	1594	(Jy)

Reference for calibration:

URL: http://adsabs.harvard.edu/cgi-bin/nph-bib_query?bibcode=2003AJ....126.1090C

Text: Cohen 2003

Versioning

Valid from: `----` `---` `--` to `----` `---` `--`

Version: This is version `_____` of filter: `---`

Owner notes:

These notes are for owner use only. They will not be published in the web page or VO services.

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Filter Profile Service: Search

Search filters

| | 16000 | < λ_mean < | 17000 | Facility: | --- | Instrument: | --- | Descrip ~ | | Search |

FilterId	λmean	λeff	λmin	λmax	Δeff	F₀(Jy)	Facility	Instrument	Short. Descrip
CAHA/Omega2000.H	16482.2	16357.5	14920	18085	2253.1	1027.6	CAHA	Omega2000	Omega2000 H
WHT/INGRID.H	16440.2	16295.0	14567	18186	2463.1	1032.4	WHT	INGRID	INGRID H
CAHA/Omega2000.FeII_1644	16417.7	16417.4	16269	16566	112.0	989.3	CAHA	Omega2000	Omega2000 FeII (1644) narrow band
CAHA/Omega2000.H_old	16483.6	16357.8	14922	18094	2230.5	1027.4	CAHA	Omega2000	Omega2000 H old filter
CAHA/Omega2000.Methane_on	16897.2	16874.1	16055	17606	810.2	989.5	CAHA	Omega2000	Omega2000 Methane on
CFHT/Wircam.CH4_on	16919.0	16896.6	16091	17702	1000.3	987.4	CFHT	Wircam	Wircam CH4 on
CFHT/Wircam.H	16309.5	16157.6	14629	18085	2795.8	1044.4	CFHT	Wircam	Wircam H
NOT/NOTcam.CH4I	16763.0	16734.5	15704	17875	1004.7	1002.0	NOT	NOTcam	CH4 I
NOT/NOTcam.FeII	16426.2	16425.3	16185	16680	196.3	1017.8	NOT	NOTcam	[Fe II]
NOT/NOTcam.H	16288.8	16131.7	14454	18074	2546.2	1046.7	NOT	NOTcam	H
WHT/INGRID.Hbarr	16366.6	16217.7	14678	18052	2724.3	1039.1	WHT	INGRID	INGRID H-barr
WHT/INGRID.FeII_w	16503.8	16505.4	16272	16743	183.2	1019.9	WHT	INGRID	[Fe II]
Subaru/IRCS.H	16298.4	16141.1	14510	18091	2566.5	1045.9	Subaru	IRCS	IRCS H
Subaru/MOIRCS.H	16371.0	16229.3	14723	18030	2727.7	1038.3	Subaru	MOIRCS	MOIRCS H
TNG/NICS.CH4I	16802.0	16776.3	15512	18139	1010.5	997.7	TNG	NICS	NICS CH4 I
TNG/NICS.FeII	16439.7	16439.1	16171	16720	211.8	1019.9	TNG	NICS	NICS FeII
TNG/NICS.H	16288.1	16128.6	14386	18144	2491.9	1046.7	TNG	NICS	NICS H
LaSilla/SOFI.H	16519.2	16365.2	14562	18421	2401.9	1025.5	La Silla	SOFI	SOFI.H
LaSilla/SOFI.NB164	16440.1	16438.9	16178	18651.6	193.3	1020.3	La Silla	SOFI	SOFI NB164
Paranal/NACO.H	16588.9	16372.4	14354	18923	2605.8	1018.8	Paranal	NACO	NACO H
Paranal/NACO.NB164	16509.7	16511.2	16350	16670	87.6	1027.4	Paranal	NACO	NACO NB 1.64, [Fe II]
Paranal/HAWKI.H	16205.9	16052.4	14431	18077	2802.5	1053.6	Paranal	HAWK-I	HAWK-I H
Paranal/ISAAC.H	16519.9	16366.1	14634	18422	2401.3	1025.4	Paranal	ISAAC	ISAAC H
UKIRT/WFCAM.H	16496.9	16338.5	14565	18762	2604.7	1027.0	UKIRT	WFCAM	WFCAM H
Keck/NIRC2.FeII	16500.0	16501.6	16260	16742	182.1	1019.2	Keck	NIRC2	NIRC2 FeII
Keck/NIRC2.H	16310.8	16150.9	14503	18089	2559.3	1044.7	Keck	NIRC2	NIRC2 H
Gemini/Flamingos2.H	16305.3	16156.7	14659	18061	2218.7	1044.7	Gemini	Flamingos2	Flamingos2 H

All the information is available as a VO service.

Retrieving information about a filter knowing its ID.

- http://.../fps.php?ID=2MASS/2MASS.H

Searching for filters.

- http://.../fps.php?FORMAT=metadata
- http://.../fps.php?WavelengthEff=1000/5000
- http://.../fps.php?Instrument=BUSCA&WavelengthEff=1000/5000

Filter Profile Service

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VO Filter Information service

The information in this registry is available as a VO service.

The service main address is:

http://svo.cab.inta-csic.es/theory/fps/fps.php

There are two ways of accessing the service:

Retrieving information about a filter knowing its ID

Just send an http query to the service specifying a filter ID as a parameter, for instance:

http://svo.cab.inta-csic.es/theory/fps/fps.php?ID=2MASS/2MASS.H

you will receive a VOTable containing all the information about the filter including its transmission curve.

The service allows for an optional additional VERB parameter representing the level of verbosity desired. If not specified, maximum verbosity will be provided. Currently, the available values are:

- **VERB=0**.
  The resulting VOTable won't include the transmission curve or PARAM descriptions. This allows for a faster response when only the filter properties are needed by the client. For instance:
  http://svo.cab.inta-csic.es/theory/fps/fps.php?ID=2MASS/2MASS.H&VERB=0

- **VERB=1**.
  The resulting VOTable won't include the transmission curve but it will include PARAM descriptions. For instance:
  http://svo.cab.inta-csic.es/theory/fps/fps.php?ID=2MASS/2MASS.H&VERB=1

- **VERB=2**.
  The resulting VOTable will include the transmission curve and PARAM descriptions. For instance:
  http://svo.cab.inta-csic.es/theory/fps/fps.php?ID=2MASS/2MASS.H&VERB=2

THANK YOU!