

Points techniques Stats, Organisation

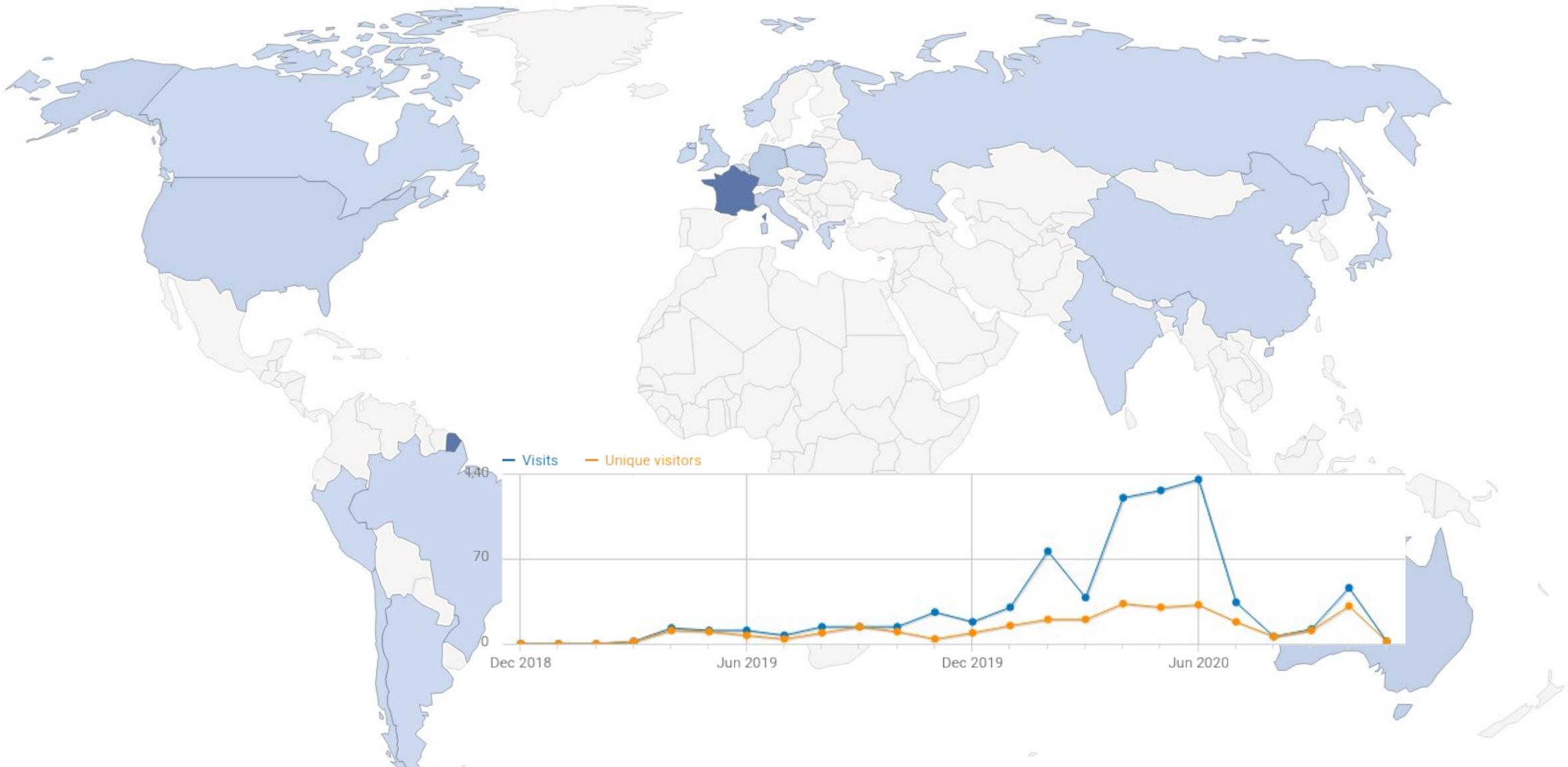
AG JMMC
4 décembre 2020

Statistiques d'utilisations

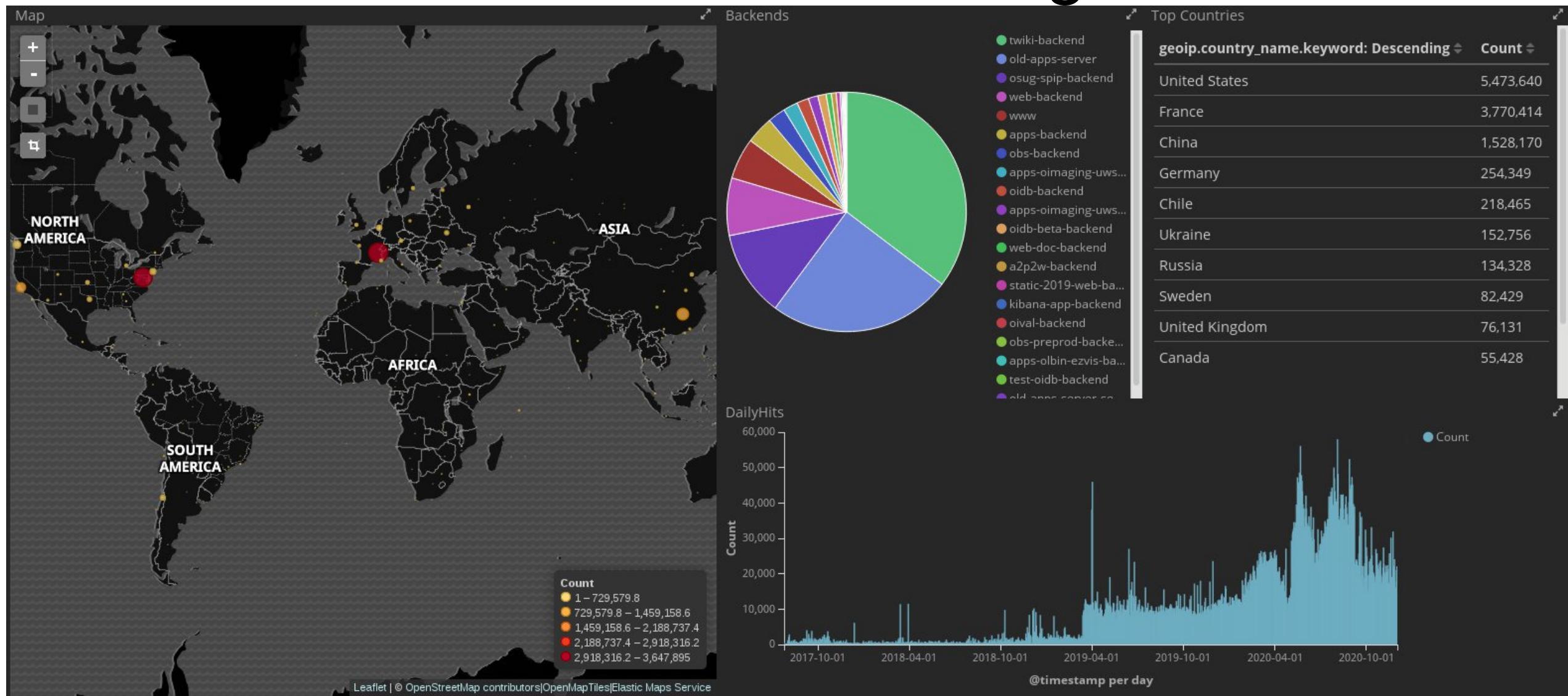
Visitor Map

625 visits

Utilisation des services hébergés à Nice



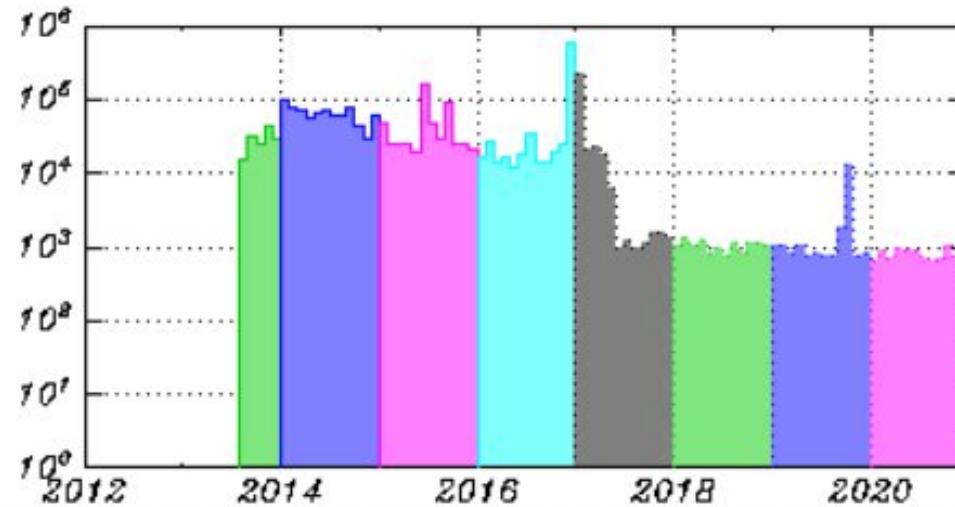
Utilisation des services hébergés à Grenoble



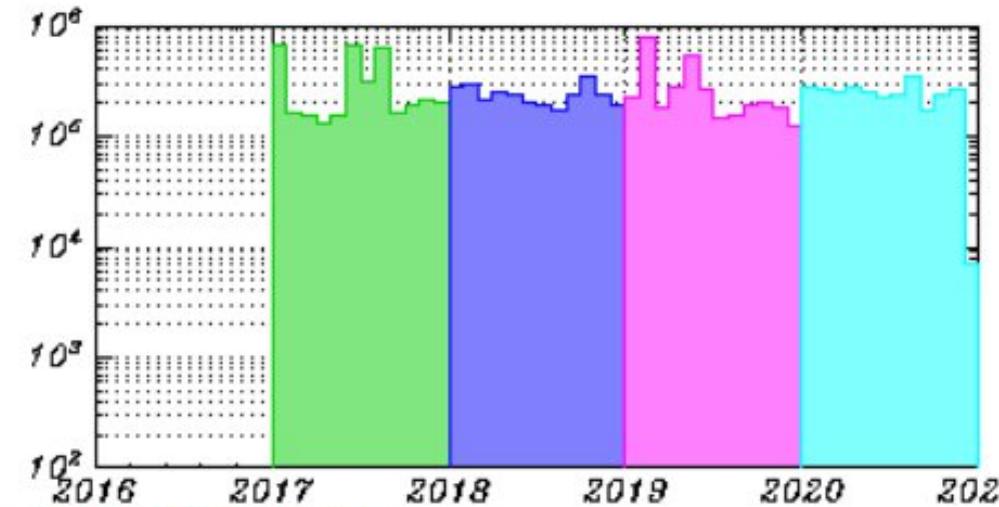
Popularité catalogues (source CDS)

Catalogues et Service SearchCal

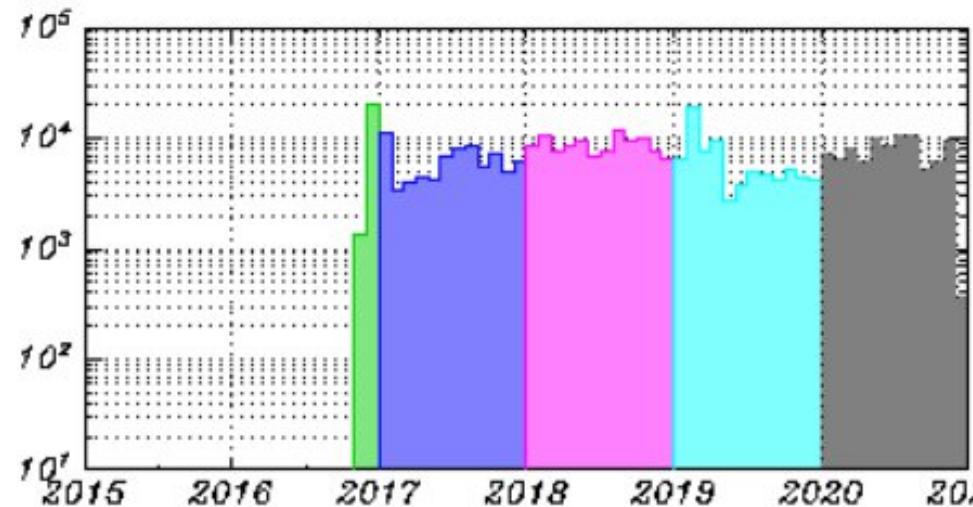
JSDC V1 II/300



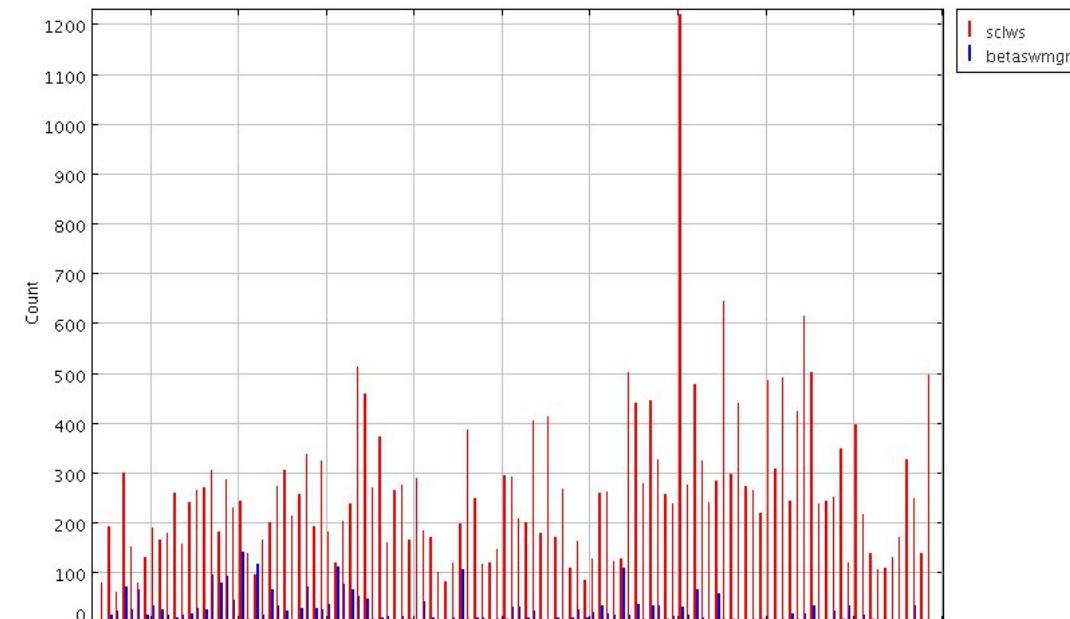
JSDC V2 II/346



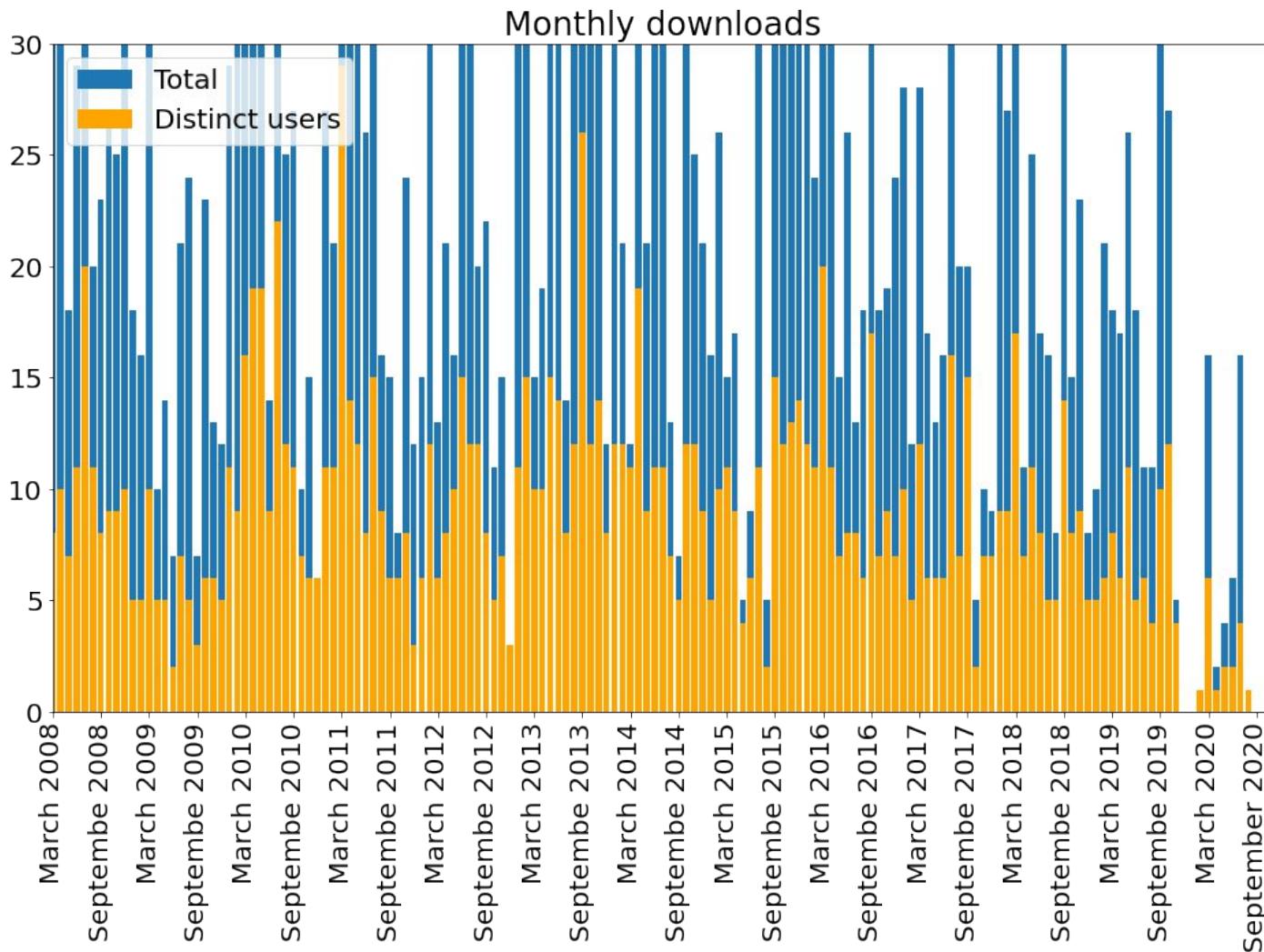
JMDC V1 II/345



Requêtes SearchCal prod/beta



Logiciels en téléchargements



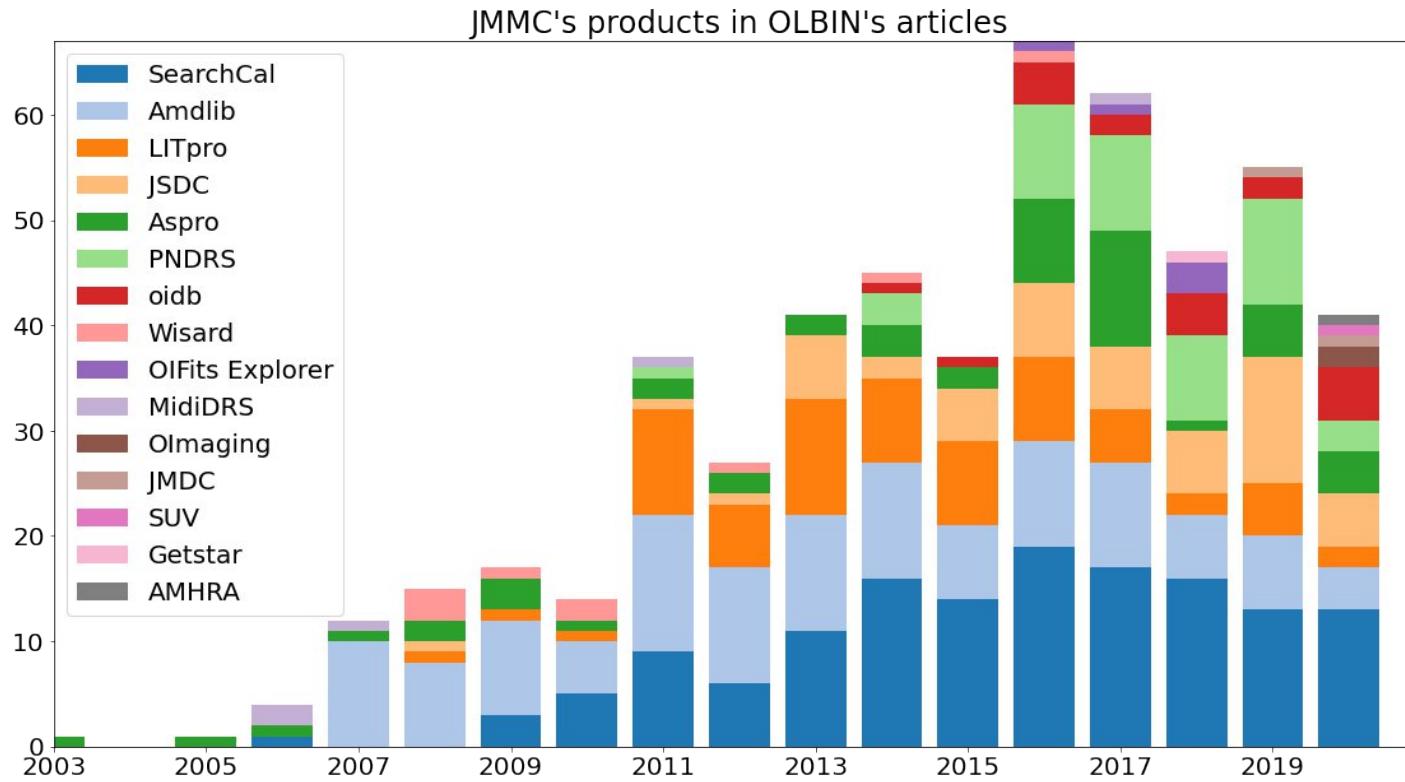
Téléchargement direct des applications JAVA depuis décembre 2019:
<https://www.jmmc.fr/releases/>

Restent essentiellement les DRS: les plus anciens semblent encore fonctionner !

Statistiques de consultations

- à renforcer pour la partie consultation web
- difficulté de tout maintenir à jour au fur et à mesure des changements
- étude/souhait d'une solution mutualisée à l'OSUG-DC

Un meilleur suivi coté biblio !



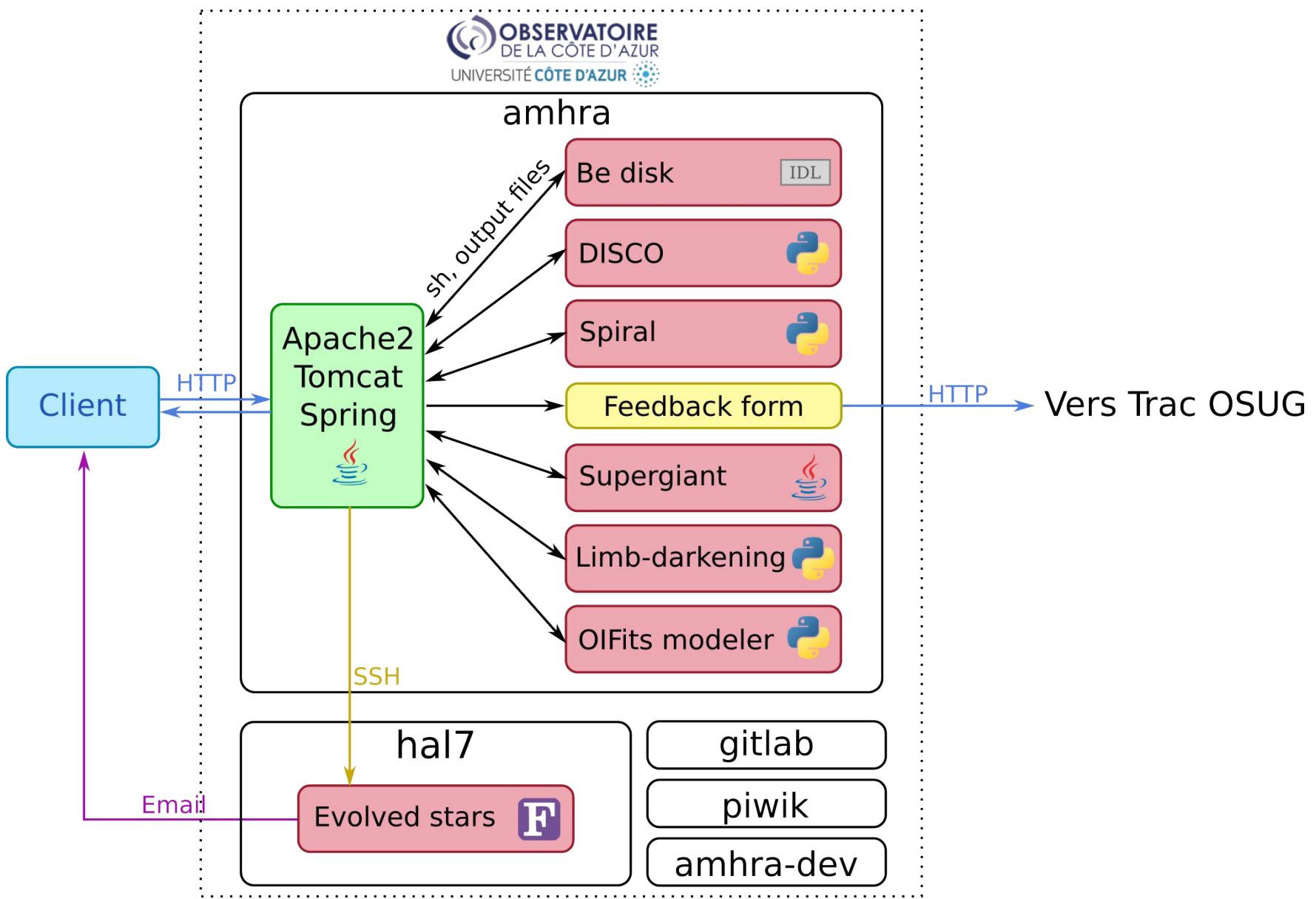
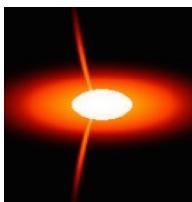
cf. présentation "publications" pour plus de détails

Activités techniques

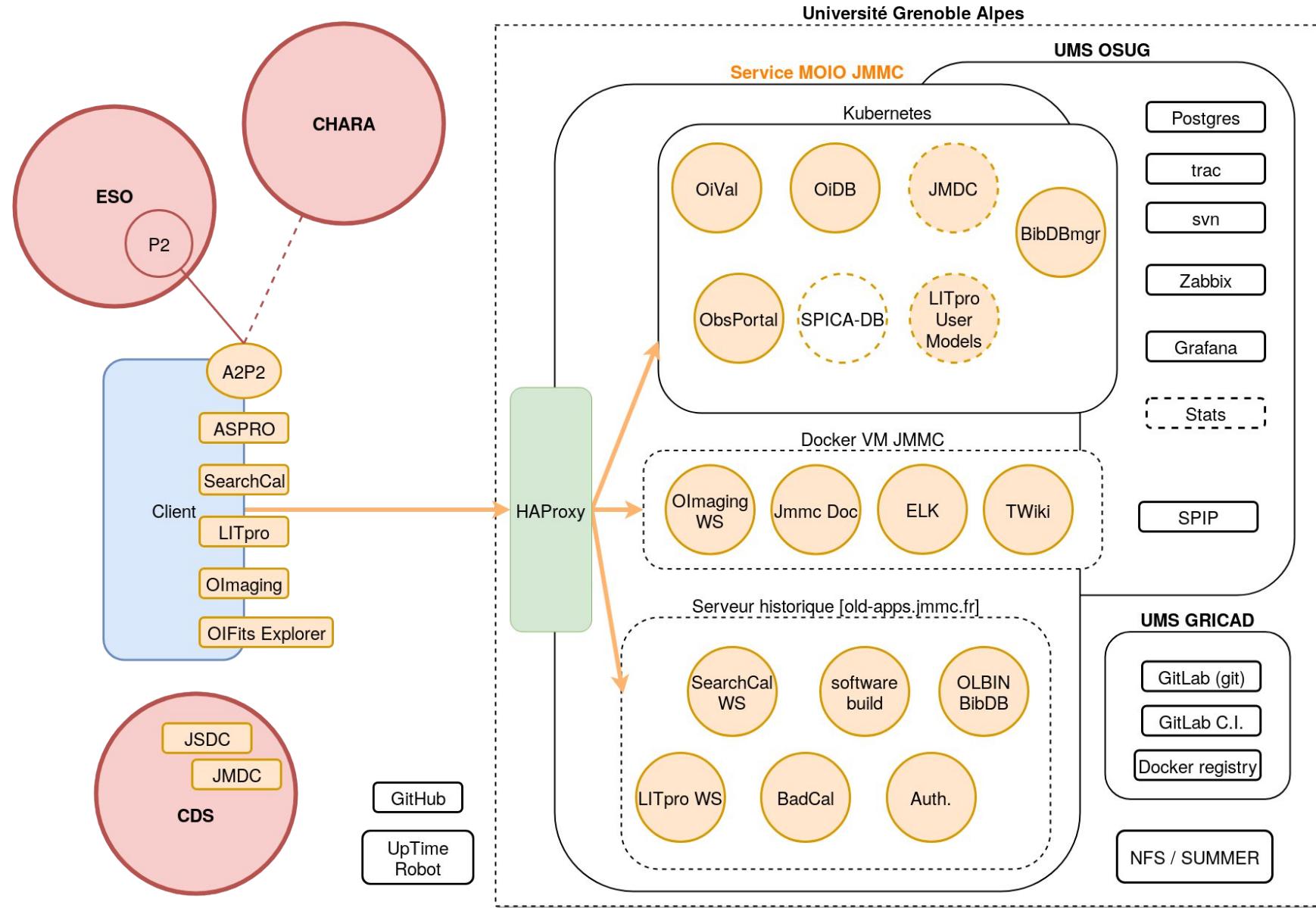
Les ingénieurs sur 2020 ~ 2 FTE, 3 sites

- **Laurent Bourgès** (80%) (IE UMS-OSUG depuis 2009.9 / OSUG-DC)
 - Responsable technique
 - Services ASPRO2 / Obs Portal, SearchCal / JSDC, OIFits Explorer & Olmaging
 - **Guillaume Mella** (90% de 80%) (IR UMS-OSUG depuis 2002) :
 - Responsable Coordination et Infrastructure
 - ModelFitting, OIVal, OiDB, A2P2, Infra, docmgr, publis, site JMDC, SPICA-DB à venir
 - **Philippe Bolland** (CDD IPAG 50%: nov 2019 - mars 2020) :
 - Obs Portal
 - **Christophe Ordenovic** (5%), **Nicolas Bruot** (CDD 30%) (OCA Lagrange):
 - portail AMHRA
 - **Grégory Salvignol** (1%) (IE CRAL) :
 - compétences BDD / web
- > **NOMBREUSES COMPÉTENCES:**
- Java, C/C++, Web, python, XML, shell, linux, ansible, docker, formats FITS, outils & standards VO ...
- > **NOMBREUSES SOLUTIONS ET OUTILS ...**

Cartographie des serveurs / Nice: AMHRA



Cartographie des serveurs / Grenoble



Opérations sur plusieurs sites

- En lien avec les Centres d'Expertises Régionaux
 - OCA (DOMINO), OSUG (OSUG-DC),
 - avec l'OSUL à venir ?
 - Des organisations humaines et techniques différentes
 - équipes vagues : labos / OSU / DSI Univ
 - technologies souvent non compatibles / transposables entre sites
 - De premières réunions mensuelles inter-site lancées en 2020
 - masse critique insuffisante
 - besoin de plus de coordination ?
- > favoriser l'interopérabilité des plateformes et développements entre CER (SSN?) ?

2020, la confinade

- Beaucoup moins d'interactions dans les groupes / inter-sites
- Passage en visio-conf jmmc-tech-group
 - moins interactif qu'en présentiel / discussions informelles moins spontanées / brainstormings moins percutants
 - télétravail plus efficace ? (on préfère le vrai tableau blanc)
 - plus de flexibilité pour participer aux confs virtuelles (INTEROP)
- Réalisations:
 - Obs Portal, intégré avec ASPRO2
 - OiDB 2.0
 - JSDC 3.0 (en cours) ...

2021, la relance ?

- Projets SPICA-DB, LITpro / Oimaging (MFIR)
- Pistes : mieux partager la roadmap / actions en cours
 - qui regarde les CR des réunions de groupes, de PIs, hebdomadaires ?
- Gitlab, un dénominateur commun ?
 - trac/svn "dépassés" -> utiliser les boards gitlab comme "support de gestion projet"
 - github sous-utilisé mais utile pour "ouvrir les codes" ...
- Créer un canal de communication instantanée #JMMC ?
(ou une mailing liste jmmc-forum@jmmc.fr)

Comment améliorer la pérennité et cohérence inter-site ?

Peut-on compter sur un renfort ingénieur affecté JMMC ?

Place aux démos



ASPRO 2 - Obs Portal

Suivi des observations VLTI dans ASPRO2

http://www.jmmc.fr/twiki/bin/view/Jmmc/Software/JmmcAspro2#Get_Information_about_past_observation



Aspro2 - Aspro2_sample_rawobs.asprox

File Edit Interop Help

Targets

Simbad

DoAr 44

Editor

X Sky

Main settings

Interferometer

VLTI

Period

VLTI Period 106

Instrument

GRAVITY

Configuration(s)

UT1 UT2 UT3 UT4

A0 G1 J2 K0

A0 G1 J2 J3

K0 G2 D0 J3

A0 B2 D0 C1

Constraints

Night restriction

Date 2020/04/14

Min. Elevation 45 Wind

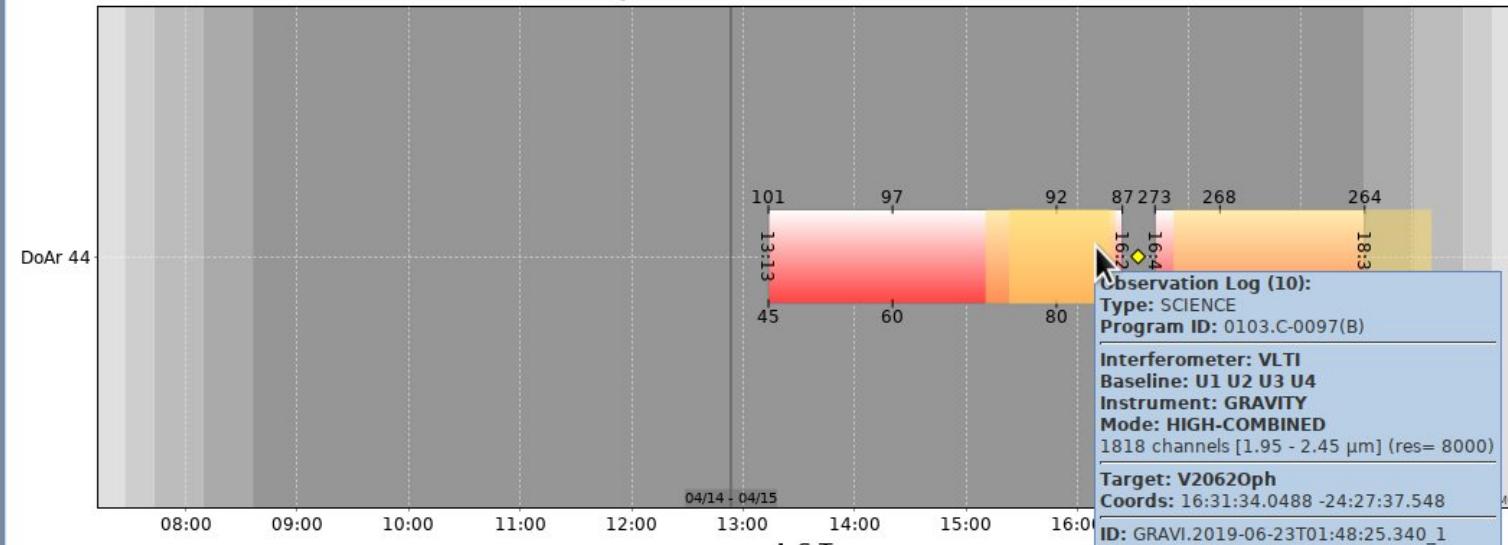


Status: Information

Notebook Map Observability UV coverage OIFits viewer

VLTI Period 106 - GRAVITY - UT1 UT2 UT3 UT4

Day: 2020-04-14 - Moon = 47.0%



Observation Log (10):

Type: SCIENCE

Program ID: 0103.C-0097(B)

Interferometer: VLTI

Baseline: U1 U2 U3 U4

Instrument: GRAVITY

Mode: HIGH-COMBINED

1818 channels [1.95 - 2.45 μm] (res= 8000)

Target: V2062Oph

Coords: 16:31:34.0488 -24:27:37.548

ID: GRAVI.2019-06-23T01:48:25.340_1

Exp. time: 300 s

Start time: 2019/06/23 01:48:25

LST: 15.176 h

Tau0: 3 ms

Temp: 16.9 C

Seeing: 0.9 as

ID: GRAVI.2019-06-23T02:49:58.495_1

Exp. time: 300 s

End time: 2019/06/23 02:54:58

LST: 16.288 h

Tau0: 2 ms

Temp: 16.7 C

Seeing: 1.3 as

Time: L.S.T.

Night only

Baseline limits

Details

Filters: Hide calibrators

Hide ancillary stars

Filter by: MIDI AMBER PIONIER GRAVITY MATISSE

Gro...	Id	Type	Parent Id	Program	Array	...	Stations	...	Ins. N...
19	GRAVI.2019-06-22T02:04:59.138_1	SCIENCE	42971	0103.C-0097(A)	VLTI		U1 U2 U3 U4		GRA
19	GRAVI.2019-06-22T02:16:14.167_1	SCIENCE	42971	0103.C-0097(A)	VLTI		U1 U2 U3 U4		GRA
19	GRAVI.2019-06-22T02:21:53.180_1	SCIENCE	42971	0103.C-0097(A)	VLTI		U1 U2 U3 U4		GRA
19	GRAVI.2019-06-22T02:27:26.194_1	SCIENCE	42971	0103.C-0097(A)	VLTI		U1 U2 U3 U4		GRA
19	GRAVI.2019-06-22T02:32:56.209_1	SCIENCE	42971	0103.C-0097(A)	VLTI		U1 U2 U3 U4		GRAVITY HIGH-COMBINED SINGLE V2062Oph
19	GRAVI.2019-06-22T02:38:35.222_1	SCIENCE	42971	0103.C-0097(A)	VLTI		U1 U2 U3 U4		GRAVITY HIGH-COMBINED SINGLE V2062Oph
19	GRAVI.2019-06-22T02:51:26.255_1	SCIENCE	42971	0103.C-0097(A)	VLTI		U1 U2 U3 U4		GRAVITY HIGH-COMBINED SINGLE V2062Oph
19	GRAVI.2019-06-22T02:57.360_1	SCIENCE	42971	0103.C-0097(A)	VLTI		U1 U2 U3 U4		GRAVITY HIGH-COMBINED SINGLE V2062Oph

OIFits done.

549 M

Provided by JMMC

Aspro2 - Aspro2_sample_rawobs.asprox

Main settings

Interferometer: VLTI
Period: VLTI Period 106
Instrument: GRAVITY

Configuration(s)

UT1	UT2	UT3	UT4
A0	G1	J2	K0
A0	G1	J2	J3
K0	G2	D0	J3
A0	B2	D0	C1

Constraints

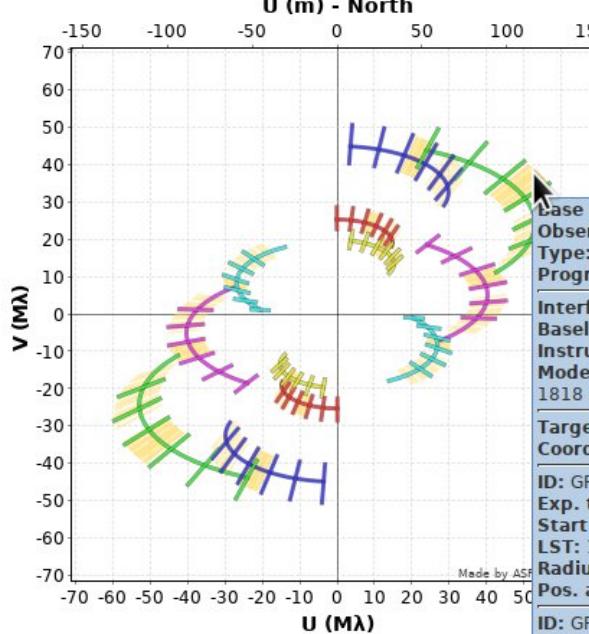
Night restriction
Date: 2020/04/14
Min. Elevation: 45 Wind:

Status:  **Information**

UV coverage

VLT Period 106 - GRAVITY - UT1 UT2 UT3 UT4
Day: 2020-04-14 - Source: DoAr 44

U (m) - North



Instrument mode: LOW-COMBINED

AO setup: MACAO

Atmosphere quality: Average

Fringe tracker mode: FringeTrack GRAVITY

U-V range to plot (m): 139.06

Sampling Periodicity (min): 60

Total Integration time (s): 600

HA min: -3.32

HA max: 2.03

Plot rise/set uv tracks:

Underplot a model image:

Plot what ...: AMP

Compute OIFits data:

Observability

U (M λ)

Legend (for the plot):

- Baseline: U1-U4
- Observation Log
- Type: SCIENCE
- Program ID: 0103.C-0097(B)

Interferometer: VLTI

Baseline: U1 U2 U3 U4

Instrument: GRAVITY

Mode: HIGH-COMBINED

1818 channels [1.95 - 2.45 μ m] (res= 8000)

Target: V2062Oph

Coords: 16:31:34.0488 -24:27:37.548

ID: GRAVI.2019-06-23T02:05:19.382_1

Exp. time: 300 s

Start time: 2019/06/23 02:05:19

LST: 15.459 h

Radius: 127.1 m

Pos. angle: 52.7 deg

ID: GRAVI.2019-06-23T02:05:19.382_1

Exp. time: 300 s

End time: 2019/06/23 02:10:19

LST: 15.542 h

Radius: 127.6 m

Pos. angle: 53.4 deg

Tau0: 3 ms

Temp: 16.9 C

Seeing: 0.8 as

Filter by: MIDI AMBER PIONIER GRAVITY MATISSE

Group	ID	Type	Parent ID	Program	Array	Stations	Ins. Name
19	GRAVI.2019-06-22T02:04:59.138_1	SCIENCE	42971	0103.C-0097(A)	VLTI	U1 U2 U3 U4	GRAVITY
19	GRAVI.2019-06-22T02:16:14.167_1	SCIENCE	42971	0103.C-0097(A)	VLTI	U1 U2 U3 U4	GRAVITY
19	GRAVI.2019-06-22T02:21:53.180_1	SCIENCE	42971	0103.C-0097(A)	VLTI	U1 U2 U3 U4	GRAVITY
19	GRAVI.2019-06-22T02:27:26.194_1	SCIENCE	42971	0103.C-0097(A)	VLTI	U1 U2 U3 U4	GRAVITY
19	GRAVI.2019-06-22T02:32:56.209_1	SCIENCE	42971	0103.C-0097(A)	VLTI	U1 U2 U3 U4	GRAVITY
19	GRAVI.2019-06-22T02:38:35.222_1	SCIENCE	42971	0103.C-0097(A)	VLTI	U1 U2 U3 U4	GRAVITY
19	GRAVI.2019-06-22T02:51:26.255_1	SCIENCE	42971	0103.C-0097(A)	VLTI	U1 U2 U3 U4	GRAVITY
19	GRAVI.2019-06-22T02:57:37.260_1	SCIENCE	42971	0103.C-0097(A)	VLTI	U1 U2 U3 U4	GRAVITY

OIFits done. 510 M. Provided by JMMC

JMMC Obs Portal

<http://obs.jmmc.fr/>

- Python/Postgres web app
- Observation Logs VLTI
 - all instruments
 - ESO sync every day (TAP)
- OiDB sync : L0 ESO
- Future:
 - Better Log filtering in ASPRO2
 - Ingest SPICA / CHARA logs



ObsPortal

The [JMMC](#) ObsPortal service provides both a web interface and a cone-search service (TAP in the future) on its database containing raw optical interferometry observations (L0):

- **ESO archive** provides VLTI observations (observing blocks & exposures).
Supported instruments are MIDI, AMBER, PIONIER, GRAVITY, MATISSE.

The [JMMC](#) also provides the [OiDB](#) service that contains published & science-ready datasets (L2, L3) in the OIFITS file format.

Please contact the [JMMC user support](#) for any remark or issue on this service.

Change log

- 2020.05.05: Release 20.05:
 - Automatic synchronization (ESO TAP)
 - Added UV points per baseline and atmospheric conditions
 - Improved performance: indexes + rewritten VOTable writer
 - Improved header validation
- 2020.02.25: First release, integrated in ASPRO2 20.03



JSDC 3 / SearchCal 6

Mise à jour du catalogue JSDC avec
SIMBAD / GAIA DR2 / MDFC

Nouveautés JSDC3 : 475 000 étoiles ...

- Changements:

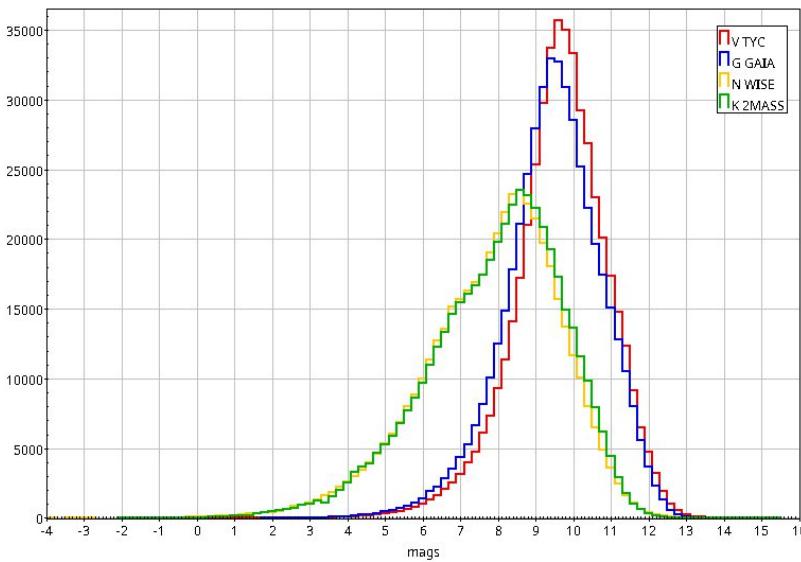
- Crossmatch +++ : best in 3as neighbourhood + XM flags = No duplicates.
"CalFlag bit 3 set if the star has neighbours within 0.5 as (GAIA) or 1.0 as (2MASS)"
- Données: SIMBAD, GAIA DR2 (ra/dec, pm, teff, dist), MDPC (flag, flux)
- *Lower memory: (Array of Struct) vs (pointer overhead): 2x smaller !*
- JSDC3 EA : http://jmmc.fr/~bourgesl/sclsvr_JSDC/JSDC_2020/LAST/

- Perspectives:

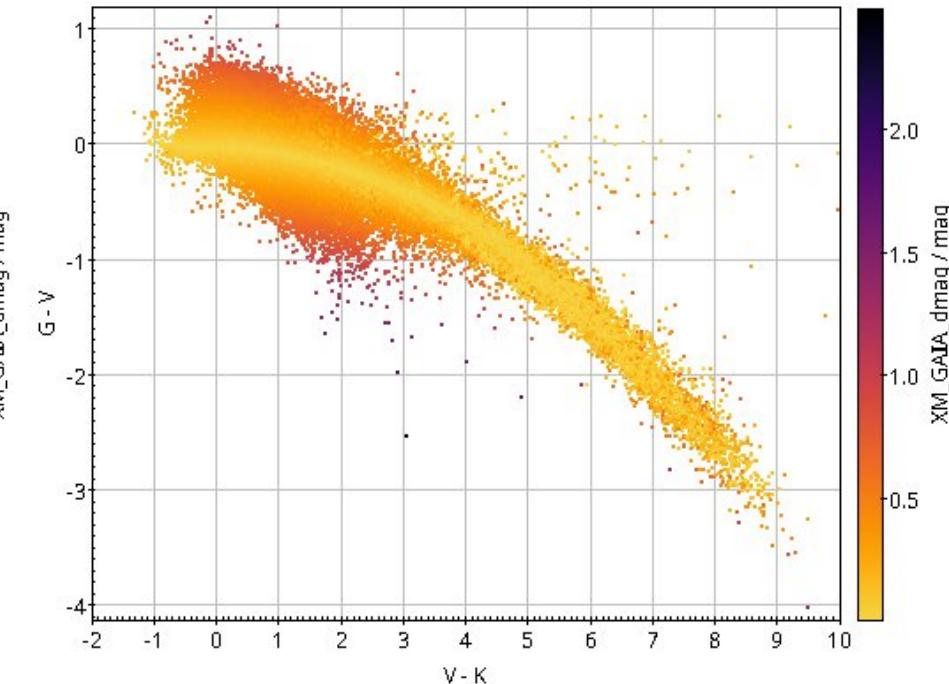
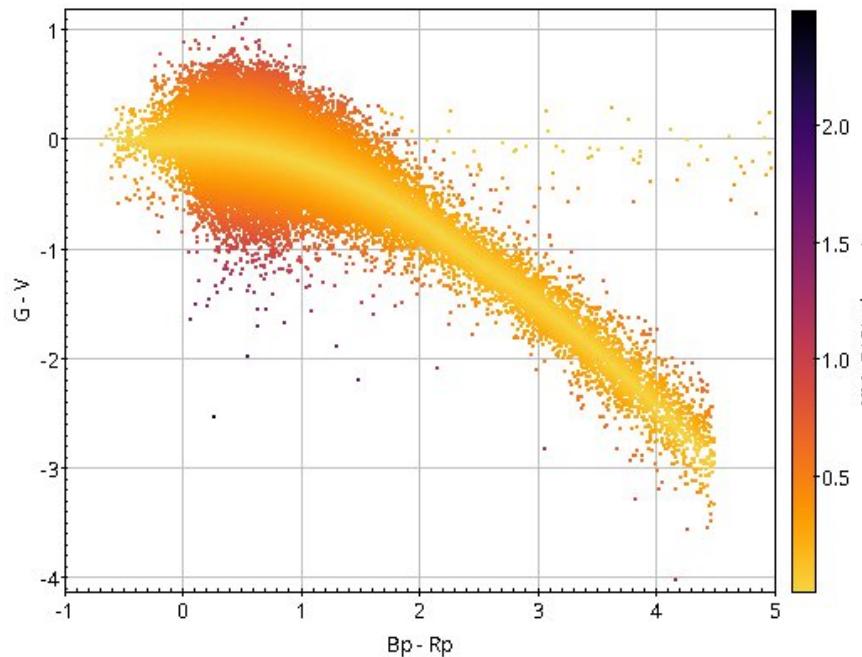
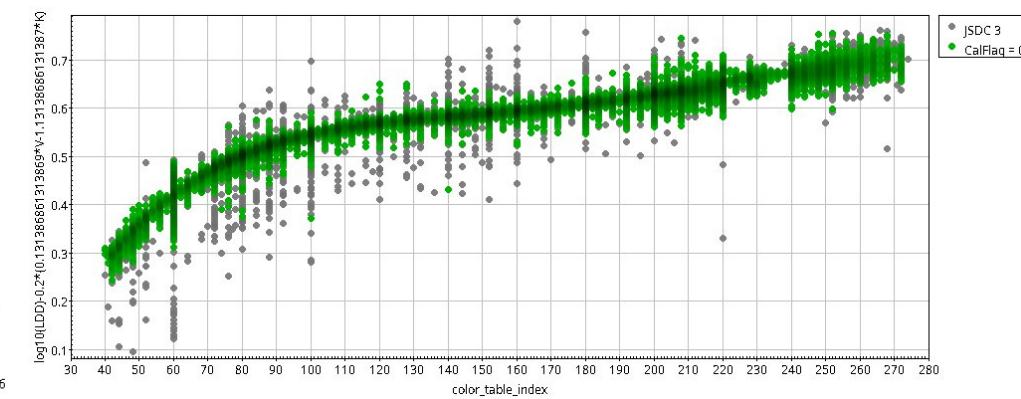
- Catalogue annexe Faint : 2m étoiles (no sp type) ?
- Update GAIA Early DR3 ?
- SearchCal 6 EA: 2021 ? GetStar EA
- Exploitation JMDC et nouvelles couleurs avec GAIA (G, Bp, Rp) + All Wise (L, M, N) : étude scientifique à démarrer (volontaires ?)
- Ouvrir le code sur github en GPL2 (mcs, scl-server, scl-gui) et les procedures STILTS (prepare candidates, filter catalog, compare ...)

Total Rows: 474963

column	good
SIMBAD	474963
GAIA	471475
TYC1	473651
TYC2	473651
TYC3	474963
2MASS	474963
WISE	470294
AKARI	153541
HD	245091
HIP	105272
DM	348198
SBC9	2454
WDS	39400



JSDC 3 EA:



```
XMATCH_LOG(String) - xmatch log (internal JMMC)  
XMATCH_MAIN_FLAG(Integer) - xmatch flags for main catalogs (ASCC, GAIA, 2MASS) (internal JMMC)  
XMATCH_ALL_FLAG(Integer) - xmatch flags for all catalogs (internal JMMC)
```

New cols

```
XM_SIMBAD_sep(Double)/as - Angular Separation of the first object in SIMBAD  
XM_ASCC_n_mates(Integer) - Number of mates within 3 as in ASCC catalog  
XM_ASCC_sep(Double)/as - Angular Separation of the first object in ASCC catalog  
XM_ASCC_sep_2nd(Double)/as - Angular Separation between first and second objects in ASCC catalog  
XM_HIP_n_mates(Integer) - Number of mates within 3 as in HIP1/2 catalogs  
XM_HIP_sep(Double)/as - Angular Separation of the first object in HIP1/2 catalogs  
XM_2MASS_n_mates(Integer) - Number of mates within 3 as in 2MASS catalog  
XM_2MASS_sep(Double)/as - Angular Separation of the first object in 2MASS catalog  
XM_2MASS_sep_2nd(Double)/as - Angular Separation between first and second objects in 2MASS catalog  
XM_WISE_n_mates(Integer) - Number of mates within 3 as in WISE catalog  
XM_WISE_sep(Double)/as - Angular Separation of the first object in WISE catalog  
XM_WISE_sep_2nd(Double)/as - Angular Separation between first and second objects in WISE catalog  
XM_GAIA_n_mates(Integer) - Number of mates within 3 as in GAIA catalog  
XM_GAIA_score(Double) - Score mixing angular separation and magnitude difference of the first object in GAIA catalog  
XM_GAIA_sep(Double)/as - Angular Separation of the first object in GAIA catalog  
XM_GAIA_dmag(Double)/mag - Magnitude difference in V band (Vest - Vref) derived from GAIA (G, Bp, Rp) laws  
XM_GAIA_sep_2nd(Double)/as - Angular Separation between first and second objects in GAIA catalog
```

GAIA(String) - GAIA DR2 identifier, click to call VizieR on this object

gaia_Teff(Double)/K - GAIA: Stellar effective temperature (estimate from Apsis-Priam)

gaia_dist(Double)/pc - GAIA: Estimated distance

Bp(Double)/mag - GAIA: Integrated Bp mean magnitude (Vega)

G(Double)/mag - GAIA: G-band mean magnitude (Vega)

Rp(Double)/mag - GAIA: Integrated Rp mean magnitude (Vega)

New cols

IRFlag(Integer) - MDFC: IR Flag (bit field):

bit 0 is set if the star shows an IR excess, identified thanks to the [K-W4] and [J-H] color indexes, and the overall MIR excess statistic X MIR computed from Gaia DR1;

bit 1 is set if the star is extended in the IR, indicated by the extent flags reported in the WISE/AllWISE and AKARI catalogues;

bit 2 is set if the star is a likely variable in the MIR, identified by the variability flags reported in the WISE/AllWISE catalogues, the MSX6C Infrared Point Source Catalogue, the IRAS PSC, and the 10-micron Catalog.

Lflux_med(Double)/Jy - MDFC: Median flux value in band L

Mflux_med(Double)/Jy - MDFC: Median flux value in band M

Nflux_med(Double)/Jy - MDFC: Median flux value in band N

Comp(String) - Component (SBC9) or Components (WDS), when the object has more than two. Traditionally, these have been designated in order of separation, thus AB, AC, . . . , or in the cases where close pairs are observed blended, AB-C, AB-D, In some instances, differing resolution limits produce situations where observations are intermixed, thus AC, AB - C, There are also many instances where later observations have revealed a closer companion; these are designated Aa, Bb, etc.