Update
Small Bodies Node SBN-MPC Annex

https://sbnmpc.astro.umd.edu/

J. Bauer, A. Mamoutkine, Q. Ye,
T. Hibbitts, P. Smith, L. Tjiputra,
M. Payne, M. Lackner, P. Lawton, E. Warner, D. Darg, J. Dailey
and the SBN team

Vesta, Dawn

MPC Database Status

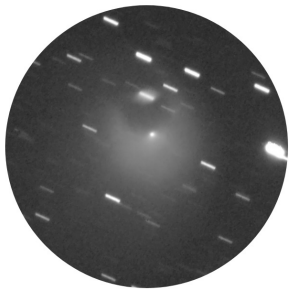
The MPC creates copies of their database. The SBN is responsible for distributing these copies and related products to the community.

- statusDB -- Overall database status and time of the latest updates for all major data tables.
- obs24 -- All observations reported in the last 24 hours.
  - MPC Report Activity Tracker (MPC-RAT) -- Number of observations per day reported to the MPC.
- obsCodes -- Date of the last reported observation for each observatory code.
- Yearly Summaries -- Yearly summaries of observations and discoveries in the MPC database.
- Database replication --

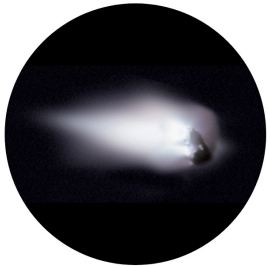
Itokawa, Hayabusa

Comet Statistics

Comet Statistics provides various statistics relating to comets in graph form. Graphs are available for data including discoveries (by year and comet type) and various orbital elements (by comet type and orbital element).
Explore Now



Comet 12P/Pons-Brooks, 8 Aug 2023 G. Masi, Virtual Telescope Proj.



1P/Halley, Halley

MPEC Watch

MPEC Watch provides various statistical metrics and plots derived from the Minor Planet Center's Minor Planet Electronic Circular service.
Explore Now

Bennu, OSIRIS-REx

MPC UG (MUG)

The **M**PC **U**sers' **G**roup (MUG) is composed of representatives from the major NEO surveys, the NEO follow-up community, the dynamics community, and the simulations community.

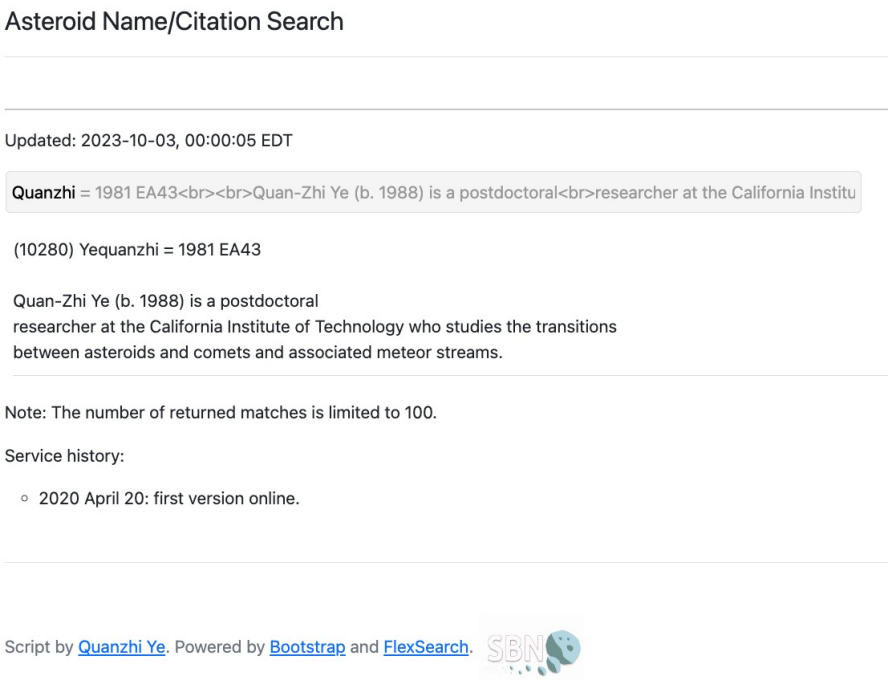
Read more on the MUG page...

The MUG welcomes feedback from the community about the Minor Planet Center. These comments will be read and considered at the next meeting.

Multiple useful products!

MPC Asteroid Name/Citation Search

A quick lookup tool for asteroid naming history!



Pages that report the health of the MPC DB and Distribution

(Plan to retire mpcbeta Postgres database)

Postgres mpcbeta:

Table	Count	Created_at	Updated_at
neocp_els	35	2023-05-15 14:03:25.79802	2023-06-01 16:42:52.71187
neocp_events	182261	2023-06-01 21:05:36.298417	2023-06-01 21:05:36.298417
neocp_obs_archive	476101	2023-06-01 13:46:13.168382	2023-06-01 13:46:13.168382
neocp_obs	471	2023-06-01 13:46:13.164515	2023-06-01 13:46:13.164515
neocp_prev_des	54053	2023-06-01 21:05:36.276177	2023-06-01 21:05:36.276177
neocp_var	65887	2023-06-01 16:42:59.662657	2023-06-01 16:42:59.662657
current_identifications	1814137	2023-06-02 02:01:32.070162	2023-06-02 02:01:32.070162
numbered_identifications	620865	2023-04-20 04:45:11.100617	2023-04-20 04:45:11.100617
primary_objects	1211321	2021-09-28 18:55:58.729643	2021-09-28 18:55:58.729643

No change to Postgres mpcbeta database structure

Postgres mpc_sbn:

Table	Count	Created_at	Updated_at
neocp_els	35	2023-05-15 14:03:25.79802	2023-06-01 16:42:52.71187
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primary_objects	1343116	2023-06-02 02:01:32.060143	2023-06-02 02:01:32.060143
obs_sbn	395878630	2022-09-02 08:24:31.462685-04	2023-06-01 22:01:33.066816-04
obs_alterations_deletions	906361	2023-06-01 15:52:43.728021	2023-06-01 15:52:43.728021
obs_alterations_redesignations	2396	2023-05-26 15:10:51.15547	2023-05-26 15:10:51.15547
obs_alterations_unassociations	19282	2023-06-02 00:10:09.135514	2023-06-02 00:10:09.135514
mpc_orbits	1277203	2023-06-02 02:08:26.80727	2023-06-02 02:08:30.289421

- ***mpc_sbn*** database has ALL tables of ***mpcbeta*** database and many other tables.
- Distribution of almost all mpc_sbn tables (except observations) is done by a **separate SBN publication** (sbn146_other_tables_pub) and separate client's subscription.
- It's strongly recommended to switch all client's software/pipelines from ***mpcbeta*** to ***mpc_sbn*** (and let SBN know).

Pages that report the health of the MPC DB and Distribution

(Plan to retire mpcbeta Postgres database)

NOTE: The MPCbeta distribution will be retired January 1st, 2024. The full postgres distribution (mpc_sbn) will be the soul postgres live copy distribution. Please contact Andrei Mamoutkine at SBN to migrate your subscription.

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As Well as the most currently reported observations and Annual Counts of Detections and Discoveries

Last 24 Hours of Observations Reported to the MPC

All observations updated at the last 24 hours. It includes provisional designation (if exists), observation date, observatory code, original record, latest DB record update time stamp. Report updated every hour. GMT timestamp of report update is at the top-left corner.

MPC Report Activity Tracker

Charts of the number of daily detections reported to the MPC.

See the plots...

2023-10-03 21:05:01 (GMT) 2023 10 03.878484

MariaDB mpc_development last 24 hour Observations:

Source file of data: obs24.csv

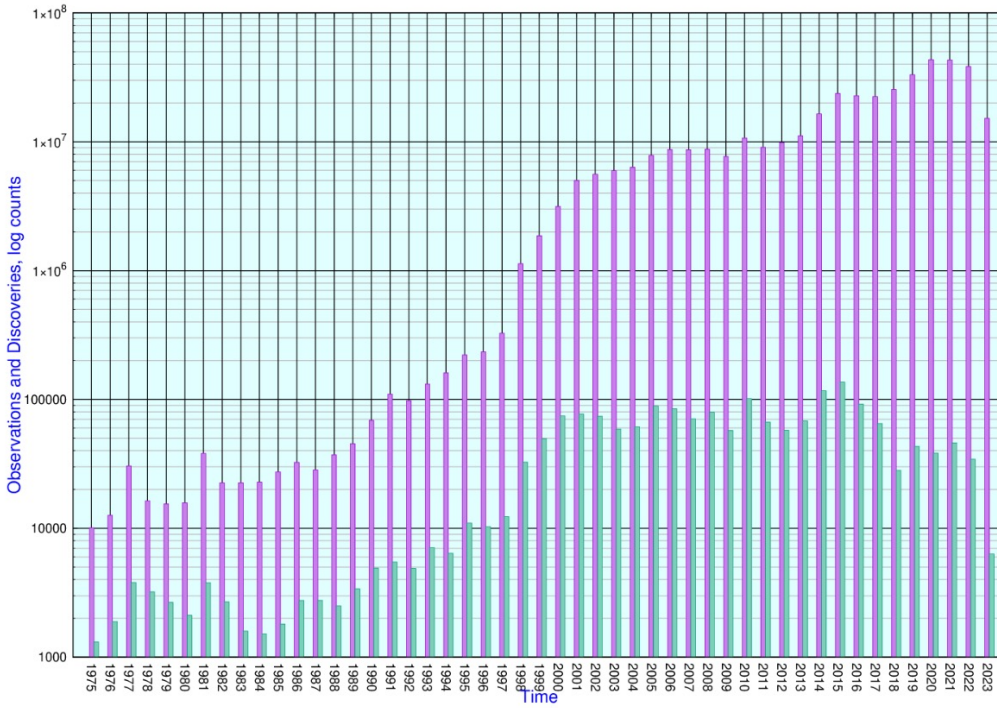
Designation	Observation_date	Observatory_code	Original_record	Created_at	Updated_at
2023 QT6	2023 10 02.880024	K74	K23Q06T KB2023 10 02.88002400 19 10.476 02 59 25.15 18.7 GXET009K74	2023-10-03 12:40:08	2023-10-03 13:18:55
	2023 10 02.88083	L68	05653 KC2023 10 02.88083 00 26 09.958 02 19 50.48 17.3 GXET009L68	2023-10-03 12:38:57	2023-10-03 12:59:12
2023 SL8	2023 10 02.881893	M49	K23S08L 0B2023 10 02.88189300 09 25.430 27 42 34.80 ZET009M49	2023-10-03 12:40:38	2023-10-03 13:19:18
2023 QT6	2023 10 02.884237	K74	K23Q06T KB2023 10 02.88423700 19 10.274 02 59 54.06 18.5 GXET009K74	2023-10-03 12:40:08	2023-10-03 13:18:55

Yearly Summaries

Updated: Monday, 18-Sep-2023 20:55:09 EDT

Observations and Discoveries per Year

Source: ObsD.csv -- This is number observations and discoveries per given year processed by the MPC (starting from 1975)



Plot of the number of observations and discoveries per given year.

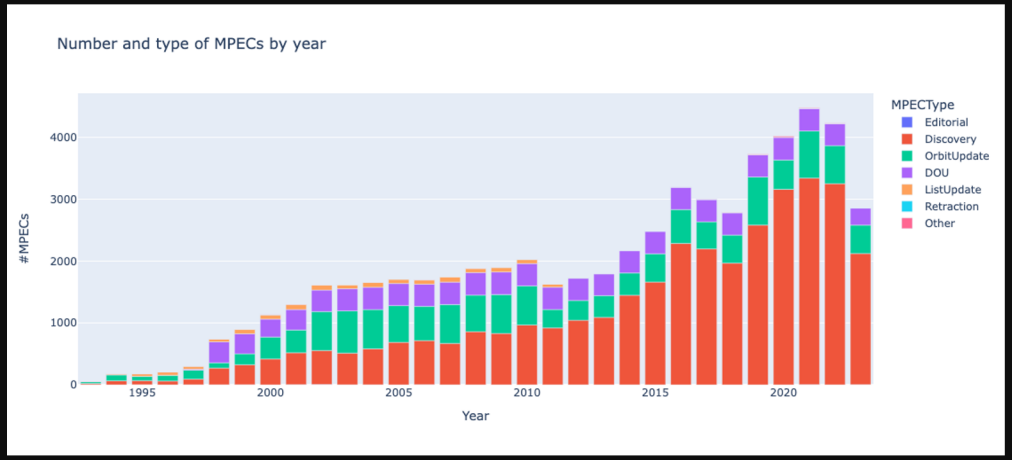
A Multi-product summary statistics tool for MPECs!!

MPEC WATCH:

Developed By Quanzhi Ye, UMD
with UMD intern Taegon Hibbitts

- Recently updated
- Lists total MPECs by year and by obscode.
- Also provides Tables for:
  - *Top MPEC Contributors*
  - *Top MPEC-ed Discoverers*
  - *Top MPEC-ed Follow-up Observatories*
  - *Top MPEC-ed First Follow-up Observatories*
  - *Top MPEC-ed Precoverers*

... Based on last year, last 5 years, and all time.



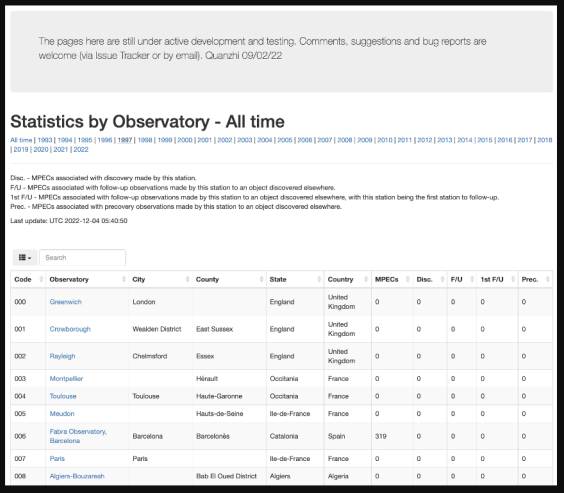
Year	Total MPECs	Editorial	Discovery	P/R/FU	DOU	List Update	Retraction	Other
2023	2860	2	2120	459	276	0	3	0
2022	4229	1	3250	615	358	0	0	5
2021	4477	3	3339	761	366	0	0	8
2020	4019	0	3160	474	367	0	0	18
2019	3728	0	2582	777	360	0	1	8

MPEC WATCH:

OBSCOD data (**Quanzhi Ye** and intern Taegon Hibbitts)

- OBSCOD Table summary.
- Observatory-specific break-down, **and machine readable** tables summary available for download.

- ***NEW!! – A Full inventory of and Direct links to MPECs as well as links to CATCH***



The pages here are still under active development and testing. Comments, suggestions and bug reports are welcome (via Issue Tracker or by email). Quanzhi 09/02/22

Statistics by Observatory - All time

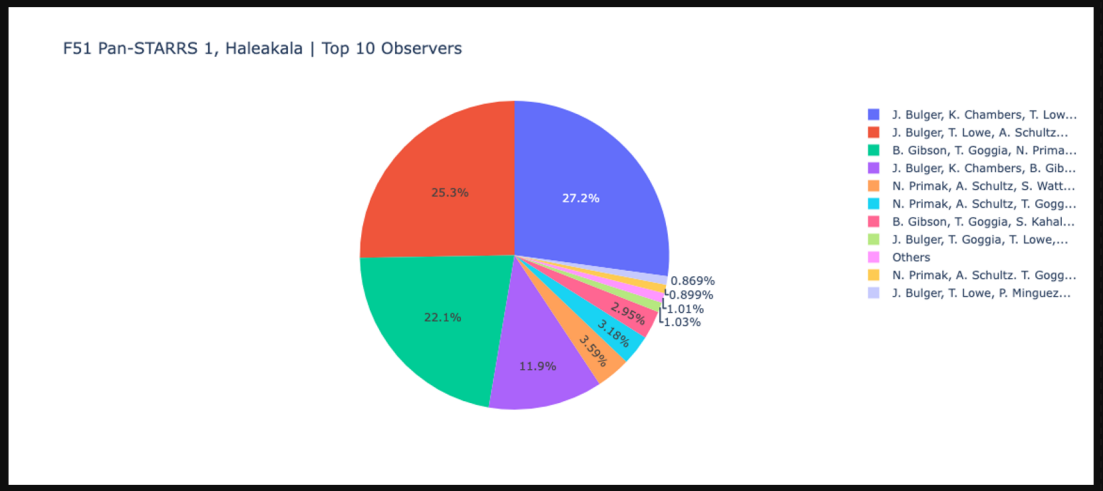
All time | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022

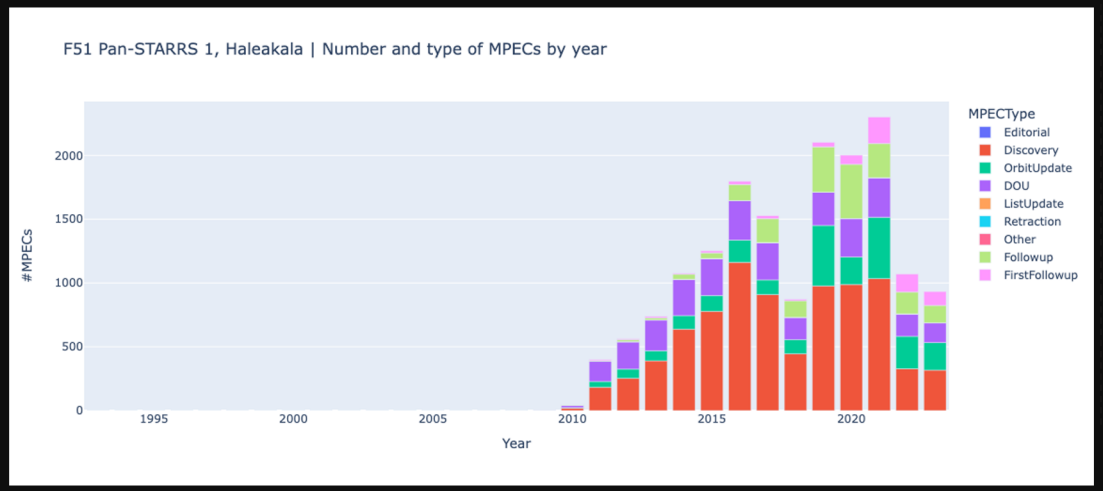
Disc. - MPECs associated with discovery made by this station.
F/U - MPECs associated with follow-up observations made by this station to an object discovered elsewhere.
1st F/U - MPECs associated with follow-up observations made by this station to an object discovered elsewhere, with this station being the first station to follow-up.
Prec. - MPECs associated with precovery observations made by this station to an object discovered elsewhere.

Last update: UTC 2022-12-04 05:40:50

Search

Code	Observatory	City	County	State	Country	MPECs	Disc.	F/U	1st F/U	Prec.
000	Greenwich	London		England	United Kingdom	0	0	0	0	0
001	Crowborough	Wealden District	East Sussex	England	United Kingdom	0	0	0	0	0
002	Rayleigh	Chelmsford	Essex	England	United Kingdom	0	0	0	0	0
003	Montpellier		Hérault	Occitania	France	0	0	0	0	0
004	Toulouse	Toulouse	Haute-Garonne	Occitania	France	0	0	0	0	0
005	Meudon		Hauts-de-Seine	Ile-de-France	France	0	0	0	0	0
006	Fabra Observatory, Barcelona	Barcelona	Barcelonès	Catalonia	Spain	319	0	0	0	0
007	Paris	Paris		Ile-de-France	France	0	0	0	0	0
008	Algiers-Bouzareah		Bab El Oued District	Algiers	Algeria	0	0	0	0	0

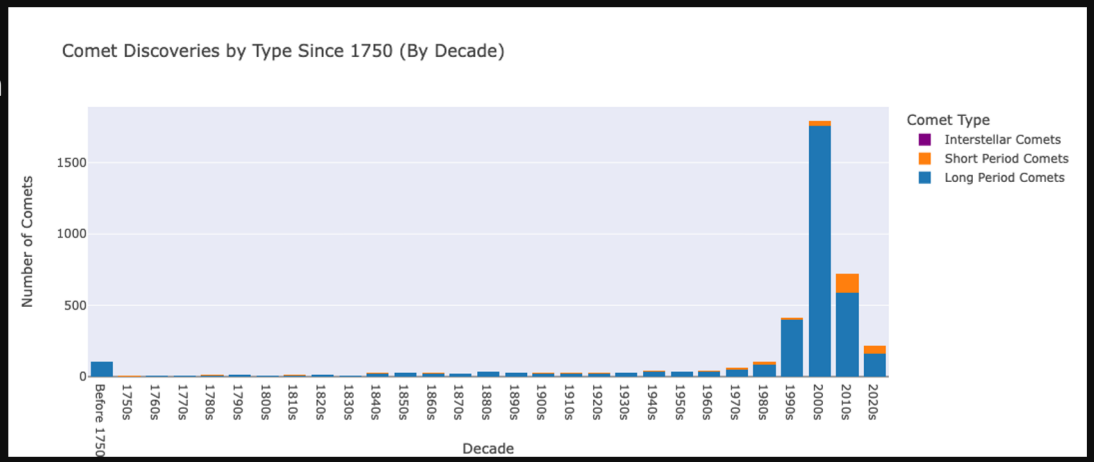


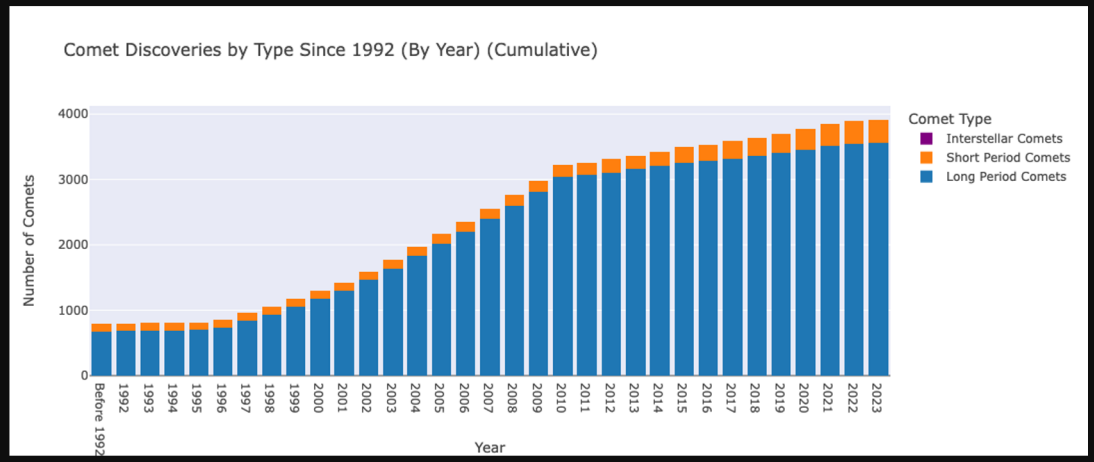


Comet Statistics Page

- ***Summarizes Comet Discoveries and Observations by type***

Dev. By UMD Intern Pete Smith & intern L. Tjiputra





Newest/Future Improvements

- MPCDB Distribution Dashboard (10/25)
- MPEC Watch object lookup tool
- Annual tallies of NEO and special SB classes by Obscode
- MPCDB Failover
- New DB query tool
- Summaries of Comet Discoveries and Observations by Observatory Code
- APIs for MPEC Watch and Other tools.

Local Time: 2023-10-24 20:19:02

Institution/Individual Alias	Status	ReplicationLagBytes
MPC_loop_mpcbeta	Active	0
ESA_obs	Active	0
MPC_loop_obs	Active	0
SBNsputnik_mpcbeta	Active	0
SDS_mpcbeta	Active	0
ADoppler_obs	Active	0
MPC_loop_other_tables	Active	0
LDemetz_obs	Active	0
CSS_sibyl_other_tables	Active	0
Rubin_other_tables	Active	0
CalTech_other_tables	Active	0
PVanWylen_other_tables	Active	0
PVanWylen_obs	Active	0
ESA_other_tables	Active	0
ESA_mpcbeta	Active	0
CSS_sibyl_obs	Active	0
Rubin_obs	Active	0
LDemetz_other_tables	Active	0
JPL_other_tables	Active	0
JPL_obs	Active	0
SDS_obs	Active	0
SDS_other_tables	Active	0
ADoppler_other_tables	Active	0
AsteroidInst_other_tables	Active	0
AsteroidInst_obs	Active	0
Rubin_usdf_other_tables	Active	0
TLinder_obs	Active	0
TLinder_other_tables	Active	0
Rubin_usdf_obs	Active	0

Number of inactive replication slots	0
Number of replication slots	29
MaxXMIN	605121499
Difference[MaxXmin-MinXmin]	0
Fully synchronized LSN	4fd/ee5d7f70
Replications stats rows	29
Number of locks processes	37
Disk space used	504G
Disk used %	28%
Disk %util	15.71%
pg_wal dir size	4.2G
Number of WAL-files	264

UNIVERSITY OF MARYLAND

IAU Minor Planet Center

PLANETARY SCIENCE INSTITUTE EST. 1972

PDS Planetary Data System