

Algorithmische Geschichte und Philosophie der Wissenschaften, Vorl 3

Gerd Graßhoff

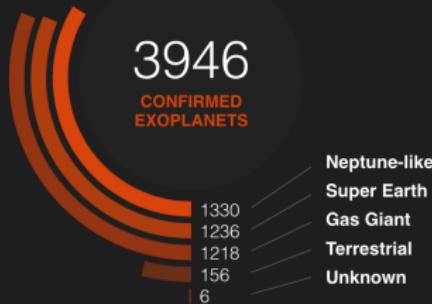
2. Mai 2019

Bisherige Entdeckungen

Exoplanet Discoveries

Latest Data from NASA's Exoplanet Archive

Planet Types



New Discovery

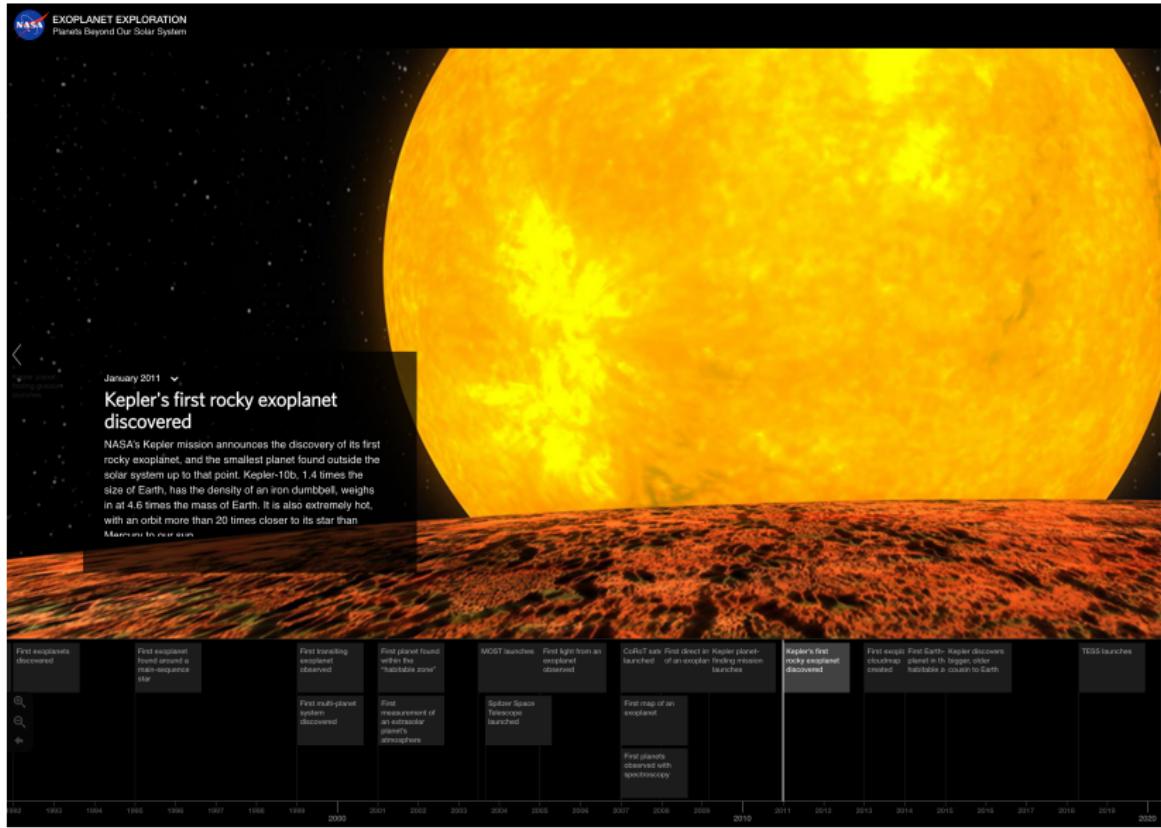


PLANET NAME
Kepler-47 d

PLANET TYPE
Neptune-like



Forschungsgeschichte



Messungen

- Messungen
- Planetentabelle
- Kepler Mission

Wissenschaftstheoretische Schlüsselbegriffe

- Forschungsobjekt / System / Planetensystem
- Modell
- Messung / Data
 - Messverfahren / -prozess
 - Instrument
- Befund / Ergebnis / Entdeckung
- Forschungsbewertung / -Vergleich

Arten der Entdeckung

A large, dark exoplanet dominates the left foreground, while a larger, reddish-orange exoplanet is visible in the background on the right.

Exoplanets Exploration Home

NASA EXOPLANET EXPLORATION
Planets Beyond Our Solar System

5 Ways to Find a Planet

WATCHING FOR WOBBLE
Radial Velocity
736 planets discovered

SEARCHING FOR SHADOWS
Transit
3050 planets discovered

TAKING PICTURES
Direct Imaging
45 planets discovered

LIGHT IN A GRAVITY LENS
Gravitational Microlensing
75 planets discovered

MINISCULE MOVEMENTS
Astrometry
1 planet discovered

NASA's Jet Propulsion Laboratory | California Institute of Technology

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EXOPLANET EXPLORATION
Planets Beyond Our Solar System

W F T Y

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3,946
Confirmed Planets →
04/25/2019

11
TESS Confirmed Planets →
04/25/2019

564
TESS Project Candidates →
04/23/2019

View more Planet and Candidate statistics →

Explore the Archive

Name or Coordinates Search

Optional Radius (arcsec) ? Advanced Search →

Transit Surveys **101,077,422 Light Curves**



Launched in April 2018, TESS is surveying the sky for two years to find transiting exoplanets around the brightest stars near Earth.

Confirmed Planets →

ExoFOP-TESS →

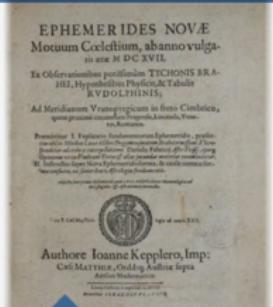
Community Candidates → Project Candidates →

TESS Kepler K2 KELT UKIRT

News → 1 2 3 4 Plots → 1 2 3 4

Four Planets, Updated Ephemerides Added
April 18, 2019 • New Data

Four newly confirmed transiting planets are in the archive this week, as well as 1,977 updated ephemerides for Kepler confirmed planets—65 of which have also been identified to have transit timing variations. (Click for details)

EPHEMERIDES NOVÆ
Motuum Cœlestium, ab anno vulgari
in arc M DCC XVII.
Ex Observacionib[us] postulam TITONIS E.R.A.
JULII, Hypothetico Phisico, & Tabulis
RVDPOLITHINIS;
Ad Meridiam Vranoprogreditur in firmi Cimelio,
quæ propter gravitatem leviora, leviora sunt.
vix. Romanae, Lissone, Venetorum.


Author: Joanne Keplerina, Imp:
CAGI MATTHIAS, Odeberg Andrius Iugia
Antonius Schmidius
Titonius Titonis Titonis Titonis Titonis
Munich 1717. 1717. 1717. 1717. 1717.

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Confirmed Planets												
Host Name	Planet Letter	Planet Name	Discovery Method	Controversial Flag	Number of Planets in System	Orbital Period [days]	Orbit Semi-Major Axis [AU]	Eccentricity	Inclination [deg]	Planet Mass or M*sin(i) [Jupiter masses]		
11 Com	b	11 Com b	Radial Velocity	0	1	326.03±0.32	1.29±0.05	0.231±0.005		19.4±1.5		
11 UMi	b	11 UMi b	Radial Velocity	0	1	516.21997±3.20000	1.53±0.07	0.080±0.030		14.7±2.50		
14 And	b	14 And b	Radial Velocity	0	1	185.84±0.23	0.83	0		4.8		
14 Her	b	14 Her b	Radial Velocity	0	1	1773.40002±2.50000	2.93±0.08	0.37±0.00		4.66±0.15		
16 Cyg B	b	16 Cyg B b	Radial Velocity	0	1	798.50000±1.00000	1.66±0.03	0.68±0.02		1.78±0.08		
18 Del	b	18 Del b	Radial Velocity	0	1	993.3±3.2	2.6	0.08±0.01		10.3		
1RXS J160929.1-210524	b	1RXS J160929.1- Imaging		0	1		330			8±1		
24 Boo	b	24 Boo b	Radial Velocity	0	1	30.3506 ±0.0078	0.190 ±0.012	0.042 ±0.048		0.916 ±0.130		
24 Sex	b	24 Sex b	Radial Velocity	0	2	458.2 ±8.1	1.333 ±0.004	0.09 ±0.14		1.99 ±0.26		
24 Sex	c	24 Sex c	Radial Velocity	0	2	883.0 ±32.4	2.08 ±0.09	0.29 ±0.18		0.86 ±0.36		
2MASS J01225093-2439505	b	2MASS J01225056 Imaging		0	1		52±6			24.5±2.5		
2MASS J02192210-3925225	b	2MASS J02192210 Imaging		0	1		156±10			13.9±1.1		
2MASS J04414489+2301513	b	2MASS J04414486 Imaging		0	1		15.0			7.5±2.5		
2MASS J12073346-3932539	b	2MASS J12073346 Imaging		0	1		46±5			4±1		
2MASS J19383260+4603591	b	2MASS J19383262 Eclipses Timing Variations		0	1	416±2	0.92±0.02			1.9±0.1		
2MASS J21402931+1625183 A	b	2MASS J21402931 Imaging		0	1	7336.5 ±1934.5		0.26±0.06	46.2 ±2.5	20.95 ±33.79		
2MASS J22362452+4751425	b	2MASS J22362452 Imaging		0	1		230±20			12.5±1.5		
30 Ari B	b	30 Ari B b	Radial Velocity	0	1	335.10001±12.50000	0.99±0.020	0.29±0.09		13.82±1.80		
4 UMa	b	4 UMa b	Radial Velocity	0	1	269.30±1.96	0.87±0.04	0.432±0.024		7.1±1.6		
42 Dra	b	42 Dra b	Radial Velocity	0	1	479.1±6.2	1.19±0.01	0.38±0.06		3.88±0.85		
47 UMa	b	47 UMa b	Radial Velocity	0	3	1078±2	2.100±0.02	0.032±0.014		2.53 ±0.07		
47 UMa	c	47 UMa c	Radial Velocity	0	3	2391 ±100	3.6±0.1	0.098 ±0.047		0.540 ±0.066		
47 UMa	d	47 UMa d	Radial Velocity	0	3	14002 ±4018	11.6 ±2.1	0.16 ±0.09		0.540 ±0.073		
51 Eri	b	51 Eri b	Imaging	0	1		13.2±0.2			2		
51 Peg	b	51 Peg b	Radial Velocity	0	1	4.23078±0.000036	0.0527±0.0030	0.013±0.012		0.472±0.039		
55 Cnc	b	55 Cnc b	Radial Velocity	0	5	14.65152±0.00015	0.1152275±0.0000079	0.0034±0.0032	90	0.8306±0.0033		
55 Cnc	c	55 Cnc c	Radial Velocity	0	5	44.4175±0.0073	0.241378±0.000026	0.020±0.031	90	0.1714±0.0055		
55 Cnc	d	55 Cnc d	Radial Velocity	0	5	4825±39	5.503±0.030	0.019±0.013	90	3.878±0.068		
55 Cnc	e	55 Cnc e	Radial Velocity	0	5	0.736539±0.000007	0.01544±0.00009		83.3 ±9.8	0.02540±0.0010		
55 Cnc	f	55 Cnc f	Radial Velocity	0	5	262.00±0.51	0.7880±0.0010	0.305±0.075	90	0.141±0.012		
6 Lyn	b	6 Lyn b	Radial Velocity	0	1	934.3±8.6	2.11±0.11	0.0730±0.0360		2.010±0.077		
61 Vir	b	61 Vir b	Radial Velocity	0	3	4.2150±0.00006	0.050201±0.000005	0.12±0.11		0.016±0.002		

