

## Fall 2016 Applications Awarded Time

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**Paul Hardersen, Vishnu Reddy, Gordon Gartrelle, Savan Becker, Matt Nowinski, Rachel Roberts**

Finding ancient lava flows: Continuing the effort to inventory basaltic asteroids in the main asteroid belt

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**Adam Schneider, Michael Cushing, Davy Kirkpatrick**

Young Planetary Mass Objects in the Solar Neighborhood

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**Taran Esplin, Kevin Luhman**

Searching for the bottom of the IMF in Taurus

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**Gordon Bjoraker, Michael Wong, Tilak Hewagama, Brigette Hesman, Glenn Orton, Csaba Palotai**

Water Clouds and Volatiles on Jupiter Concurrent with Juno

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**Nicholas Moskovitz, Richard Binzel, Bobby Bus, Gareth Williams, Steven Chesley, David Polishook, Francesca DeMeo, Brian Burt**

IRTF NEO Rapid Response: Close Encounters of the Asteroid Kind

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**Therese Encrenaz, Thomas Greathouse, Matthew Richter, Curtis DeWitt, Thomas Widemann, Bruno Bezar, Thierry Fouchet, Sushil Atreya, Hideo Sagawa**

HDO and SO<sub>2</sub> Mapping in Venus Mesosphere

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**Glenn Orton, Thomas Momary, Michael Janssen, Candice Hansen, James Sinclair, Kevin Baines, Leigh Fletcher, Padma Yanamandra-Fisher, Jack Connerney, Takehiko Satoh, Scott Bolton, Alberto Adriani, Davide Grassi, Giuseppe Sindoni, George R. Gladstone, Stuart Stephens, Yasumasa Kasaba, Hajime Kita, Thomas Stallard, Takao Sato, James ODonoghue, Thomas Stallard, Basia Jabros, Henrik Melin, Aquatín Sánchez-Lavega, Ricardo Hueso, Santiago Pérez-Hoyos, Sara Jeon Kim, Thomas Encrenaz**  
Characterizing Short-Term Variability in Jupiter Between Juno Perijove Passes

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**James Sinclair, Glenn Orton, Thomas Greathouse, Leigh Fletcher, Rohini Giles, Patrick Irwin**

Strength and evolution of Jupiter's auroral-related emission during Juno's 6th and 9th perijove.

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**Lawrence Sromovsky, Patrick Fry**

Spatial and temporal variations of methane on Uranus

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**Michael Gordon, Terry Jones, Roberta Humphreys**

Near-Infrared Spectroscopy of Obscured Red Supergiants in M33

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**Francesca DeMeo, David Polishook, Benoit Carry, Richard Binzel, Mirel Birlan, Brian Burt, Tom Endicott**

Determining the role of Mars in refreshing asteroid surfaces

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**Francesca DeMeo, Schelte J. Bus, Richard Binzel, David Polishook, Alan Tokunaga, Brian Burt, Mirel Birlan, Andrew Rivkin, Nicholas Moskovitz**

Spectral Measurements of Spacecraft Mission Candidates and Potentially Hazardous Asteroids

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**David Polishook, Francesca DeMeo**

Disentangle between rotational breakup models by searching for spectral variations on 'fresh' asteroid pairs

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**Leigh Fletcher, Thomas Greathouse, Glenn Orton, Henrik Melin, Rohini Giles, James Sinclair, Patrick Irwin, Therese Encrenaz**

Jupiter's Atmospheric Circulation from TEXES: Mid-Infrared Climate Mapping to Support NASA's Juno Mission

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**Sean Brittain, John Carr, Joan Najita, Mate Adamkovics**

A study of OH in disks around Herbig Ae/Be stars

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**Zachary Maas, Catherine Pilachowski**

Chlorine Abundances in the Thick Disk

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**Leslie Young, William Grundy, Bryan Holler, Eliot Young**

Occasional Triton spectra 2013-2017 for rotational and seasonal variability

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**Joel Green, Yao-Lun Yang, John Lacey, Thomas Greathouse**

A Jet Shapes a Cloud: High Speed Shocks in [Ne II]

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**Kevin Wagner, Michael Sitko**

From Pre-Transition to Transition Disk: The Disappearing Inner Disk in HD 169142

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**Luis Gabriel Dahmer Hahn, Rogerio Riffel, Thaisa Storchi Bergmann, Rogemar Andre Riffel, Alberto Rodriguez-Ardila, Lucimara Pires Martins, Richard Davies, Leonard Burtcher**

Does Star Formation Play a Decisive Role in active galactic nuclei Fueling?

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**Richard Cartwright, Joshua Emery, Andy Rivkin, David Trilling, Noemi Pinilla-Alonso**

Dark Material on the large moons of Uranus: What is it and where did it come from?

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**Ellen Howell, Ronald Vervack, Yan Fernandez, Jenna Crowell, Sean Marshall**

Combining thermal observations and radar-derived shapes of near-Earth asteroids

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**David Trang, Vishnu Reddy, Juan Sanchez, Driss Takir, Paul Hardersen**

Search for dark material on Vestoids

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**Neil Cook, Federico Marocco, Ben Burningham, David Pinfield, Hugh Jones**

A Continued Search for Ultra-Cool Companions to M dwarfs in WISE, 2MASS and SDSS

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**Hermine Landt, Martin Ward, Daniel Kynoch, Chris Packham, Gary Ferland, Andy Lawrence, Joerg-Uwe Pott, Kirsten Schnuelle**

The first spectroscopic monitoring of the dusty torus in an AGN: case study NGC 5548

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**Thomas Greathouse, Glenn Orton, Leigh Fletcher, Therese Encrenaz, Thierry Fouchet, Rohini Giles, Raul Morales-Jeberias, Rick Cosentino**

Characterizing Wave Phenomena in Jupiter's Upper Atmosphere in the Thermal-IR

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**Henrik Melin, Tom Stallard, Leigh Fletcher, Steve Miller, Larry Trafton, James O'Donoghue, Rosie Johnson**

Disentangling the energy drivers of Uranus' upper atmosphere

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**Michael Sitko, Ray Russell, Carol Grady, Stefan Kraus, Misato Fukagawa**

V1247 Ori: Dynamics of the Inner regions of a Gapped Disk

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**Laurie Chu, Klaus Hodapp**

Investigating Volatile Ices in Molecular Clouds in Preparation for JWST

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**Amanda Sickafoose, Michael Person, Amanda Bosh, Carlos Zuluaga, Stephen Levine**

Stellar occultations by Pluto, Chariklo, and 84922

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**James Mullaney, Chris Harrison, Emmanuel Bernhard, David Alexander**

Characterising the full diversity of intrinsic, near-infrared AGN SEDs

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**Jennifer Greco, Michael Cushing, Adam Schneider, Davy Kirkpatrick**

Characterizing Discoveries from the NEOWISE Proper Motion Survey

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**Andrea Banzatti, John Rayner, Mihkel Kama, Uma Gorti**

Establishing the connection between gas and dust depletion in planet-forming regions of protoplanetary disks

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**Hajime Kita, Yasumasa Kasaba, Takeshi Sakanoi, Glenn Orton, Tom Stallard, Chihiro Tao, Tomoki Kimura, Ichiro Yoshikawa, Alberto Adriani, Randy Gladstone, Takao Sato, Shohei Aoki, Davide Grassi, Takeshi Kuroda, Masato Kagitani, Hiromu Nakagawa**

Investigation of time variability of Jovian thermosphere by coordinated observation of IRTF iSHELL with Juno and Hisaki EXCEED

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**Tom Stallard, Steve Miller, Henrik Melin, Sarah Badman, James O'Donoghue, Kevin Baines, Luke Moore, Rosie Johnson**

Measurements of Saturn's aurora and ionospheric winds in support of Cassini

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**Paul Corlies, Alexander Hayes, Patricio Rojo, Mate Adamkovics, Elizabeth Turtle, Sebastien Rodriguez, Jonathan Lunine, Jonathan Mitchell, Matthew McKinney**

Continued investigation of seasonal changes in Titan's meteorology through cloud monitoring with IRTF SpeX

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**Constantine Tsang, John Spencer, Thomas Greathouse, Emmanuel Lellouch, Miguel Lopez-Valverde**

Ice Sublimation Atmosphere: Seasonal Study

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**Evan Rich, John Wisniewski, Michael Sitko, Carol Grady, Misato Fukagawa, Jamie Lomax**

Constraining the Duty Cycle of the Inner Disk of HD 163296

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**Rosie Johnson, Tom Stallard, Henrik Melin, Glenn Orton, Alberto Adriani, Yasumasa Kasaba**

Measuring ion winds and temperatures of the Jovian ionosphere: support for the NASA Juno and JAXA Hisaki missions.

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**Jonathan Gagne, Jacqueline Faherty, Joseph Filippazzo, Etienne Artigau**

The search for cold, isolated planetary-mass objects in the solar neighborhood

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**Courtney Dressing, Elisabeth Newton, David Charbonneau, Josh Schlieder**

Characterizing Low-mass Stars Hosting Small Planets

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**Michael Liu, Beth Biller, Katelyn Allers, Etienne Artigau, Loic Albert, Po-Shih Chiang, Wen-Ping Chen, Mickael Bonnefoy, Philippe Delorme, Jessy Jose, Niall Deacon, Greg Herczeg, Rene Doyon**

Discovering the youngest free-floating planets: spectroscopic confirmation of candidate young brown dwarfs and planetary mass objects from a transformative survey of Taurus with the novel W-band filter

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**Vishnu Reddy, Bobby Bus, Juan Sanchez**

Physical Characterization of Small NEOs

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**Megan Reiter, Nuria Calvet**

How to grow big and strong: measuring the accretion mechanism in intermediate-mass protostars

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**Neil Dello Russo, Michael DiSanti, Ronald Vervack, Harold Weaver, Hideyo Kawakita, Adam McKay, Lori Feaga**

The chemical composition of comet 45P/Honda-Mrkos-Pajdusakova

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**Ka Tat Wong, Matt Richter, Karl Menten, Helmut Wiesemeyer, Tomasz Kaminski**

Probing Ammonia Formation in Circumstellar Envelopes

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**John Rayner, William Vacca, Michael Cushing**

Anomalous A0V Stars

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**Susan Benecchi, Anne Verbiscer, David Rabinowitz, Will Grundy, Audrey Thirouin**

Mutual Event Observations of the Kuiper Belt binary [79360] Sila-Nunam

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**Myriam Pajuelo, Mirel Birlan, Benoit Carry, Jerome Berthier, Francesca DeMeo, Marcel Popescu**

Spectral characterization of small binary asteroids.

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**Elisa Delgado-Mena, Daniel Andreasen, Nuno Santos, Sergio Sousa, Barbara Rojas-Ayala, Pedro Figueira**

Towards a new method for derivation of precise parameters for M dwarfs

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**Michael Kelley, Margaret McAdam, Ray Russell, Jessica Sunshine, Chick Woodward**

Composition and heterogeneity of D- and T-type asteroids

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**Joshua Emery**

Where did the Trojan asteroids form? Constraints from composition and size distributions.

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**Joshua Emery, Cristina Thomas, Andy Rivkin**

A Search for 3-um features on near-Earth Asteroids

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**Jose P. Fonfria, Miguel Santander-Garcia, Jose Cernicharo**

High resolution high sensitive molecular survey of IRC+10216 in the spectral range 1-5um

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**Joshua Schlieder, Thomas Greene, Sebastien Lepine, Tom Herbst, Emily Rice**

Completing the CASTOFFS Survey with SpeX IV. Fall Targets: Part 3

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**Glenn Orton, Thomas Momary, Kevin Baines, Padma Yanamndra-Fisher, James Sinclair, Leigh Fletcher, Scott Bolton, Jack Connerney, Michael Janssen, Candice Hansen, Takehiko Satoh, Alberto Adriani, Davide Grassi, Giuseppe Sindoni, George R. Gladstone, Yasumasa Kasaba, Hajime Kita, Thomas Stallard, Takao Sato, James O Donoghue, Thomas Stallard, Rosie Johnson, Henrik Melis, Thomas Encrenaz, Thomas Gouhenans**

Characterizing the Jovian Atmosphere in Support of Juno Engineering-Orbit Perijoves

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**Klaus Hodapp, Bringfried Stecklum, Alessio Caratti o Garatti**

The High-Mass Accretion Outburst in S255 NIRS3

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**Silvia Protopapa, Michael Kelley, Bin Yang, Jessica Sunshine, Michael A'Hearn, Jacqueline Keane**

The Physical Properties of Water Ice in Comets

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**Eric MacLennan, Joshua Emery**

Regolith Effects on Asteroid Space Weathering: An Observational Investigation

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**Brian Mazur, Tom Megeath**

SpeX Spectroscopy of Close [ $< 400$  AU] YSO Multiples in Orion

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**Jayne Birkby, Ian Crossfield, Remco de Kok, David Charbonneau**

A direct high-resolution spectrum of the hot Jupiter ups And b: Measuring detailed chemical abundances and the 3-D architecture of a multi-planet system

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**Michael Connelley, Tom Greene**

Measuring the Magnetic Fields of Protostars with iSHELL

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**Kimberly Aller, Michael Liu, Eugene Magnier**

Finding the Elusive Substellar Members of Nearby Young Moving Groups

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**Nicole Karnath, Samuel Megeath, William Fischer, Joseph Booker**

iSHELL Spectroscopy of Orion Protostars

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**Schelte J. Bus, Alan Tokunaga, Francesca DeMeo, Richard Binzel, David Polishook, Brian Burt, Mirel Birlan, Andrew Rivkin, Nicholas Moskovitz**

Spectral Measurements of Spacecraft Mission Candidates and Potentially Hazardous Asteroids

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**Kevin Hardegree-Ullman, Michael Cushing, Philip Muirhead**

Planet Occurrence around Mid-Type M Dwarfs in the Kepler Field

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**Lison Malo, Claire Moutou, Jean-Francois Donati, Louise Yu, Elodie Hebrard**

Timescales of exoplanet formation

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**Geronimo Villanueva, Michael Mumma, Robert Novak, Sara Faggi, Gian-Paolo Tozzi, Lucas Paganini**

Unidentified chemistry on Mars? Strong tests of current photochemical models via global mapping of water and ozone [sampled by O2 dayglow]

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**Samuel Grunblatt, Eric Gaidos, Daniel Huber**

Spectroscopic-Asteroseismic Calibration for Giant Stars Observed with K2

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**Margaret McAdam, Michael S. P. Kelley, Chick Woodward, Ray W. Russell, Jessica Sunshine**

Using IRTF to extend the scientific impact of future and ongoing asteroid missions to populations of primitive asteroids

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**James Muzerolle, Kevin Flaherty, Zoltan Balog, Tracy Beck, Elise Furlan, Robert Gutermuth**

Circumbinary Accretion Disk Dynamics Traced by SpeX

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**Carey Lisse, Mike Sitko, Massimo Marengo, Bertrand Mennesson, Steve Ertel, O. Abisil, C. Chen**

SpeX Exosystem Characterization of CHARA/FLUOR H & K-band Excess Objects

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**Michael Connelley, Bo Reipurth**

The Periodic Spectroscopic Variability of DQ Tau

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**Billy Vazquez, Andrew Robinson, Triana Almeyda, Michael Richmond, Jack Gallimore**

Revealing the circum-nuclear torus: SpeX follow-up of Active Galactic Nuclei observed during a Spitzer reverberation mapping campaign

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**Mark Lacy, Eilat Glikman, Tanya Urrutia**

Spectroscopy of candidate high luminosity dust obscured quasars

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**Julie Rathbun, John Spencer, Con Tsang**

High Time Resolution Imaging of Io's Volcanos to Understand their Influence of the Jovian Magnetosphere during the Juno Mission

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**Yeon Joo Lee, Takao Sato, Hideo Sagawa, Javier Peralta, Toru Kouyama, Takehiko Satoh, Shigeto Watanabe**

Monitoring SO<sub>2</sub> abundance in the atmosphere of Venus through a coordinated observation between SpeX/IRTF and Akatsuki spacecraft

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**Driss Takir, Joshua Emery**

Searching for Volatiles and Organics in the Outer Main Asteroid Belt

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**Michael Mumma, Boncho Bonev, Michael DiSanti, Erika Gibb, Lucas Paganini, Geronimo L. Villanueva, Sara Faggi, Gian-Paolo Tozzi**

iSHELL observations of a bright Target-of-Opportunity Comet.

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**Sunkyung Park, Jeong-Eun Lee, Daniel Jaffe, Tae-Soo Pyo, Seokho Lee**

Dynamical and physical structures of inner gaseous disk of a new FU Orionis type object, 2MASS J06593158-0405277

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**Peter Plavchan, Jonathan Gagne, Peter Gao, Russel White, Angelle Tanner, Cullen Blake, Ryan Hall, Joseph Huber, Frank Giddens, Elise Furlan, Chas Beichman, John A. Johnson, Kaspar von Braun, Bernie Walp**

What radial velocity precision is obtainable with iSHELL and the isotopic methane gas cell?

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**Vishnu Reddy, Driss Takir, Juan Sanchez, Carol Raymond**

IRTF Support for Dawn Extended Mission

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**Zhoujian Zhang, Michael Liu, William Best, Eugene Magnier**

A Pan-STARRS1 & WISE Search For Brown Dwarfs In The Taurus Star-Forming Region

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**Umut Yildiz, Lars Kristensen, Greg Herczeg**

Constrain protostellar wind conditions and chemistry

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**Daniella Bardalez Gagliuffi, Adam Burgasser, Christopher Gelino, Jacqueline Faherty, Kelle Cruz, Nathalie Skrzypek, Sarah Schmidt, Johannes Sahlmann, Christopher Theissen, Enrique Solano, Miriam Aberasturi**

Volume-Limited Spectral Survey of Late M and L Dwarfs II: Spectroscopic Follow-up of Multi-Catalog Selected Sources to Address Significant Incompleteness in the 25 pc Sample

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**Ryan Norris, Fabien Baron**

Spectroscopy of Red Supergiants as Part of an Interferometric Imaging Survey

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**Ian Wong, Michael Brown, Joshua Emery**

Near-infrared Spectra of Bright Hilda Asteroids: Probing the Hilda-Trojan Connection

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**Michael Lucas, Joshua Emery**

Building Blocks of the Terrestrial Planets: Spectral Homogeneity Among Hungaria Family Asteroids

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**Benjamin Sargent, Sundar Srinivasan**

Confirming Inner Galactic Bulge OH/IR Star Candidates' Identities with SpeX

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**Jillian Neeley, Massimo Marengo, Giuseppe Bono, Vittorio Braga, Massimo Dallora**

Spectroscopy of Nearby Distance Indicators

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**Cristina Thomas, Lucy Lim, David Trilling, Nicholas Moskovitz**

Search for a Differentiated Asteroid Family

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**Eric Gaidos, Andrew Gaidos, Megan Ansdell**

Infrared Spectroscopy for Combined Radial Velocity-Astrometric Measurements of M Dwarf Mass

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**Guy Stringfellow**

Spectral and Photometric Monitoring of Active Luminous Blue Variables and Newly Identified Candidates

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**Dinalva A. Sales, Andrew Robinson, Jack Gallimore, Alberto Rodriguez-Ardila, Thaisa Storchi-Bergmann, L. R. Colina**

Near-IR study of the OH Megamaser Infrared Luminous Galaxy

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