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2017.1.00419.S

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↕ Project	↕ Instrument	Title	↕ First Obs	↕ Last Obs	
 Operations	EVLA	Observations used by Operations for maintenance, testing, and engineering needs	2009-10-14 21:18	2025-08-14 11:51	69065 execution blocks
 25A-051	EVLA	Capybara Plan: view the edge-on low surface brightness galaxies by VLA	2025-03-15 15:30	2025-08-14 11:40	19 execution blocks 
 25A-166	EVLA	New Radio Observation of the Pulsar Wind Nebula in G76.9+1.0	2025-07-21 09:32	2025-08-14 10:05	2 execution blocks 

- Throughout these slides, the red boxes highlight where you need to click or provide input.



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Dates From:

YYYY-MM-DD

Dates To:

YYYY-MM-DD

Start Frequency:

GHz ▾

End Frequency:

GHz ▾

Coordinate Frame:

Equatorial ▾

Equinox:

J2000 ▾

Right Ascension:

HMS ▾

Declination:

DMS ▾

Radius:

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Telescope:

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Equatorial

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J2000

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HOPS 102

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Equatorial

Equinox:

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Declination:

-004d 52m 17.9985741959985s DMS

Radius:

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Source Name:

HOPS 102

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Telescope:

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Receivers:

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	↕ Project	↕ Instrument	Title	↕ First Obs	↕ Last Obs	↕ Distance from Query	
+	2017.1.00419.S	ALMA	The Hunter's Gift: A Bounty of Forming Disks to Further Our Understanding of Protostellar Evolution	2018-01-07 04:49	2018-01-07 06:14	0.1"	1 execution blocks
+	2015.1.00041.S	ALMA	Orion Disk And Multiplicity Survey	2016-09-03 13:48	2017-07-19 16:31	0.2"	3 execution blocks
+	2018.1.01284.S	ALMA	A 350 GHz ACA Survey of Orion Protostars	2018-10-02 07:33	2019-01-11 05:09	0.3"	8 execution blocks
+	2022.1.00342.S	ALMA	Survey of Orion Protostellar Outflow-Envelope Interactions and Evolution	2022-10-09 06:57	2024-10-19 09:49	0.3"	60 execution blocks

Abstract Text:

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Abstract: The formation of a protostar and its Keplerian disk remains a poorly characterized process, but ALMA now provides an opportunity for significant progress. These forming disks also hold the key to measuring the most fundamental parameter of newborn stars, their masses derived from the Keplerian disk rotation. The measurement of protostar masses and the properties of forming disks for large ensembles of systems is essential to solidifying our knowledge of star and planet formation. Our ALMA Cycle 3 survey of 330 protostars in the Orion molecular clouds at 0.13" (50 AU) resolution yielded >100 well-resolved continuum images of apparent protostellar disks. We propose to observe a sample of 20 disk candidates around 10 Class 0 and 10 Class I protostars, drawn from a representative range of luminosities (0.4 L_{sun} to 480 L_{sun}). With these observations, we will confirm whether or not each disk is Keplerian, using molecular line tracers (primarily C18O J=2-1), measure the change in mass and mass accretion between the Class 0 and I phases, how much the disk properties depend on stellar mass, and how much disk structure evolves from Class 0 to Class I and later stages.

PI: John Tobin

Co-Authors: Dominique Segura-Cox, Tom Megeath, Amelia Stutz, Leslie Looney, Nicole Karnath, Nickalas Reynolds, Brian Stephenson, Patrick Sheehan, Zhi-Yun Li, Stella Offner, Michael Dunham, Elise Furlan, Laura Perez, Hector Arce, Guillem Anglada, Ana Karla Diaz Rodriguez, Kaitlin Kratter, Merel van 't Hoff, Ewine van Dishoeck, Erin Cox, Mayra Osorio, Sarah Sadavoy, William Fischer, Magnus Persson, Mihkel Kama, Friedrich Wyrowski

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	MOUS	↕ Observation Start	↕ Observation Stop	File Size	Array Config	Ang Res	Bands	EBs	
<div></div>	HOPS-383_a_06_TM1	2018-01-07 04:49	2018-01-07 06:14	89.366 GB	12M	0.220"	06	1	<div>Download Restored MSRe-Imaging</div>

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MOUS	↕ Observation Start	↕ Observation Stop	File Size	Array Config	Ang Res	Bands	EBs		
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	↕ Project	↕ Instrument	Title	↕ First Obs	↕ Last Obs	
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Project Instrument Title

2017.1.00419.S ALMA The Hunter's
Evolution

Title: The Hunter's Gift: A Bounty of Forming Disks to Further Our
Abstract: The formation of a protostar and its Keplerian disk remain
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PI: John Tobin**Co-Authors:** Dominique Segura-Cox, Tom Megeath, Amelia Stutz,
Hector Arce, Guillem Anglada, Ana Karla Diaz Rodriguez, Kaitlin K

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Observation

HOPS-383_a_06_TM1 2018-01-07 04:4

Launch User Imaging on: 2017.1.00419.S x

User Email (required):

Request Description:

SPW:

Field:

Angular Resolution:

Rest Frequency:

Start:

Width:

N Channels:

End:

AUDI request

(218.186 GHz-218.244 GHz) dnu = 122.1 kHz dv = 0...

HOPS-102 ▾

0.224 arcsec

Frequency Space

Velocity Space

GHz

GHz

kHz

384 ▾

GHz

Validate Form

Using CASA version sa/RHEL8/prod/casa-6.6.1-17-pipeline-2024.1.1.22

Cancel

Submit Request

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User Email (required):

Request Description:

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SPW:

(218.186 GHz-218.244 GHz) dnu = 122.1 kHz dv = 0...

Field:

HOPS-102

Angular Resolution:

0.224

arcsec

Frequency Space

Velocity Space

Rest Frequency:

GHz

Start:

218.19152503476113

GHz

Width:

122.08206065846288

kHz

N Channels:

384

End:

218.23840454605397

GHz

Validate Form

Using CASA version sa/RHEL8/prod/casa-6.6.1-17-pipeline-2024.1.1.22

Cancel

Submit Request

- red - required
- blue - optional
- frequency-space comes with valid pre-defined settings
 - velocity-space will require rest frequency
- rest frequencies can be obtained from <https://www.splatalogue.online>

Last Obs

04:49 2018-01-07 06:14 1 execution blocks

These forming disks also hold the key to measuring the most disks for large ensembles of systems is essential to solidifying resolved continuum images of apparent protostellar disks. We (D L_sun). With these observations, we will confirm whether or not how much the disk properties depend on stellar mass, and how much

Li, Stella Offner, Michael Dunham, Elise Furlan, Laura Perez, cher, Magnus Persson, Mihkel Kama, Friedrich Wyrowski

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Project Instrument Title

2017.1.00419.S	ALMA	The Hunter's Evolution
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Page 1

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Observation

HOPS-383_a_06_TM1

2018-01-07 04:4

Launch User Imaging on: 2017.1.00419.S x

User Email (required): jtobin@nrao.edu

Request Description: AUDI request

SPW: (230.431 GHz-230.665 GHz) dnu = 488.3 kHz dv = 0...

Field: HOPS-102 ▾

Angular Resolution: 0.224 arcsec

Rest Frequency: 230.538 GHz

Start: -100 km/s

Width: 1 km/s

N Channels: 200 ▾

End: 100 km/s

Validate Form

Using CASA version sa/RHEL8/prod/casa-6.6.1-17-pipeline-2024.1.1.22

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PI: John Tobin**Co-Authors:** Zhi-Yun Li, Friedrich Wyrowski, Mihkel Kama, Magnus
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MOUSes

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Page 1

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End: 100 km/s

Re-enable Inputs

Using CASA version sa/RHEL8/prod/casa-6.6.1-17-pipeline-2024.1.1.22

Cancel

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