## 2020 Virtual DDA Meeting Schedule

### 2020 Virtual 51st Annual Meeting of the DDA

#### Q&A/Discussion Webinar Schedule

All presentations (except the plenary prize lectures) are pre-recorded and are available for viewing on the [registrant-only DDA meeting website](https://dda.aas.org). [1]

Public links to many of the presentations are now available!

You can [see all of the meeting abstracts in ADS](http://adsabs.harvard.edu), or click on the individual talk/poster titles to go to individual abstracts in ADS.

All times below are EDT (UTC-4)

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<tr>
<th>Monday, August 3</th>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
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<tbody>
<tr>
<td>10:50 AM EDT</td>
<td>Kat Volk, SOC and DDA chair</td>
<td>Introduction and announcements</td>
<td></td>
</tr>
<tr>
<td>11:00 AM - 11:35 AM EDT</td>
<td>Special Session</td>
<td><strong>The Main Belt: A Complex Dynamical System (Session 100)</strong></td>
<td></td>
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<tr>
<td></td>
<td>Mikael Granvik</td>
<td>University of Helsinki / Luleå University of Technology</td>
<td><em>(Invited)</em> Source regions of meteorites and near-Earth asteroids [7] - <a href="http://www.example.com">Link to Recording</a> [8]</td>
</tr>
<tr>
<td></td>
<td>Stanley Dermott</td>
<td>University of Florida</td>
<td>A new observational constraint on the Yarkovsky-driven mobility of main belt asteroids [9] - <a href="http://www.example.com">Link to Recording</a> [10]</td>
</tr>
</tbody>
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[1]: https://dda.aas.org
[2]: http://adsabs.harvard.edu
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### 11:35 AM - 12:05 PM EDT

**Planetary System Populations (Session 101)**

**Chairs:** Darin Ragozzine

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td></td>
<td><strong>Nature vs. nurture: a Bayesian framework for assessing apparent correlations between planetary orbital properties and stellar ages</strong></td>
<td>Emily Safsten</td>
<td>The Pennsylvania State University</td>
<td>[15]</td>
</tr>
<tr>
<td></td>
<td><strong>Unraveling Warm, Large Exoplanet (WaLE) Origins From TESS Observations</strong></td>
<td>Jiayin Dong</td>
<td>The Pennsylvania State University</td>
<td>[16]</td>
</tr>
<tr>
<td></td>
<td><strong>Kepler and K2 systems dynamically unveiled via periodic orbits</strong></td>
<td>Kyriaki Antoniadou</td>
<td>Aristotle University of Thessaloniki</td>
<td>[17]</td>
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<tr>
<td></td>
<td><strong>On the Seasonal Flux and Temperature Variations on Circumbinary Planets</strong></td>
<td>Srisurya Yadavalli</td>
<td>Georgia Institute of Technology</td>
<td>[18]</td>
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### 1:00 PM - 2:30 PM EDT

**Plenary Session (Session 102): Vera Rubin Early Career Prize Lecture**

**Dirk Brouwer Prize Lecture**

Chair: Kat Volk

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<tbody>
<tr>
<td>1:00</td>
<td><strong>What I have learned about the Milky Way's dynamics from Gaia so far</strong></td>
<td>Jo Bovy</td>
<td>University of Toronto</td>
<td>[19]</td>
</tr>
<tr>
<td>1:45</td>
<td><strong>Forming Gravitational Wave Sources through Stellar Dynamics</strong></td>
<td>Fred Rasio</td>
<td>Northwestern University</td>
<td>[20]</td>
</tr>
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### Tuesday, August 4

**Stellar Kinematics in the Milky Way and Complex Stellar Clusters (Session 200)**

Chair: Heidi Jo Newberg

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td>9:30 AM</td>
<td><strong>N-Body Simulations</strong></td>
<td>Eric Mendelsohn</td>
<td>Rensselaer Polytechnic</td>
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<tr>
<td>Institute</td>
<td>Topic</td>
<td>Recording</td>
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| Nondh Panithanpaisal          | University of Pennsylvania  
Stellar Streams and Their Progenitors in MW-like Simulations          | [27]      |
| Thomas Donlon                 | Rensselaer Polytechnic Institute  
A Recent Major Radial Merger Leaves Shells in the Milky Way            | [29]      |
| Drona Vargya                  | University of Pennsylvania  
Nemesis Stars in Dynamic Time-Dependent Galactic Potentials            | [31]      |
| Maria Tiongco                 | University of Colorado  
Complexities in the Kinematical Evolution of Globular Clusters         | [32]      |
| Hangci Du                     | Tsinghua University  
Kinematics of RR Lyrae stars in the Galactic bulge with OGLE-IV and Gaia DR2 | [36]      |

**10:00 AM - 10:15 AM EDT**

The Solar System in the Galaxy: Interstellar objects and stellar flybys (Session 201)

Chair: Darryl Seligman

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<tr>
<th>Name</th>
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<th>Topic</th>
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<tbody>
<tr>
<td>Amir Siraj</td>
<td>Harvard University</td>
<td>Identifying Interstellar Objects Trapped in the Solar System through Their Orbital Parameters</td>
</tr>
<tr>
<td>Marvin Morgan</td>
<td>University of Pennsylvania</td>
<td>Close Encounters of Stars in the Solar Neighborhood (Poster PDF)</td>
</tr>
<tr>
<td>Tim Hallatt</td>
<td>McGill University</td>
<td>The Dynamics of Interstellar Asteroids and Comets within the Galaxy: An Assessment of Local Candidate Source Regions for 1I/'Oumuamua and 2I/Borisov</td>
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**10:15 AM - 10:40 AM EDT**

Early Planetary Systems: accretion, collisions, and orbital configurations (Session 202)

Chair: Gongjie Li

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Mor Rozner</td>
<td>Technion</td>
<td>The aeolian-erosion barrier for the growth of metre-size objects in protoplanetary-discs and implications</td>
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<tr>
<td>Time</td>
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<tr>
<td>1:30 PM - 2:00 PM EDT</td>
<td>Asteroid Dynamics: Pairs, Multiples, Shapes, and Spin States (Session 203)</td>
<td>Seth Jacobson</td>
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Queensland

2:00 PM - 2:20 PM EDT

**Exoplanets: Linking Observations and Dynamics with TTVs (Session 204)**

Chair: Juliette Becker

Chris Fox  
University of Western Ontario

Jack Lissauer  
NASA Ames Research Center

Mariah MacDonald  
Pennsylvania State University

Abigail Graham  
Brigham Young University

2:20 PM - 2:50 PM EDT

**Planetary Satellites and Rings (Session 205)**

Chair: Matthew Tiscareno

Joseph A'Hearn  
University of Idaho

Maryame El Moutamid  
Cornell University

Matija Cuk  
SETI Institute

Matthew Hedman  
University of Idaho

Philip Nicholson  
Cornell University

Matthew Young  
University of Idaho

**Wednesday, August 5**

9:30 AM - 10:00 AM EDT

**Planetary System Stability (Session 300)**

Chair: Dimitri Veras

Daniel Tamayo  
Princeton University
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<tr>
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<tr>
<td>10:00 AM - 10:25 EDT</td>
<td>Bars and Spiral Arms in Galaxies (Session 301)</td>
<td>Aleksey Generozov</td>
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<tr>
<td>2:00 PM - 2:05 PM</td>
<td>Special Session: The Dynamics of Building a Dynamics Community (Session 302)</td>
<td>Smadar Naoz</td>
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### Talks:

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<tr>
<td>A. Paula Granados Contreras</td>
<td>Academia Sinica</td>
<td>long-term stability of compact multi-planet systems [78] - Link to Recording [79]</td>
</tr>
<tr>
<td>Sacha Gavino</td>
<td>CNRS-Université de Bordeaux</td>
<td>Mass stability limit for coorbital planets in a horseshoe configuration [80]</td>
</tr>
<tr>
<td>Billy Quarles</td>
<td>Georgia Institute of Technology</td>
<td>Orbital stability of compact three-planet systems, [81]- Link to Recording [82]</td>
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<tr>
<td>Laetitia Rodet</td>
<td>Cornell University</td>
<td>Orbital Stability of Exomoons and Submoons with Applications to Kepler 1625b-I [84]</td>
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<tr>
<td>Monica Valluri</td>
<td>University of Michigan</td>
<td>FORSTAND: A New Schwarzschild Dynamical Modeling Code for Galaxies of All Morphological Types [86] - Link to Recording [87]</td>
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<tr>
<td>Katherine Xiang</td>
<td>Johns Hopkins University</td>
<td>Buckling bars in face-on galaxies observed with MaNGA [88]</td>
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<tr>
<td>E. Athanassoula</td>
<td>Laboratoire D' Astrophysique De Marseille</td>
<td>Orbits in galactic bars [89] - Link to Recording [90]</td>
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<tr>
<td>Angela Collier</td>
<td>JILA/ UC Boulder</td>
<td>Halo-Bar Coupling via Secular Torques [91] - Link to Recording [92]</td>
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<td>Emma Lieb</td>
<td>University of Colorado Boulder</td>
<td>Leading Spiral Arms in Isolated Disc Galaxies [93] -- Duncombe Student Research Prize Winner - Link to Recording [94]</td>
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### Special Session

**The Dynamics of Building a Dynamics Community (Session 302)**

Chair: Smadar Naoz

2:00 PM - 2:05 PM
Thursday, August 6

11:00 AM - 11:30 AM EDT

Special Session

**Artificial Celestial Bodies as a Dynamical Laboratory for Astrophysical and Celestial Dynamics (Session 400)**

Chairs: TBD

- **Alessandra Celletti**
  University of Rome Tor Vergata
  (Invited) **Regular, resonant and chaotic motions within space debris** [96] - [Link to Recording] [97]

- **Shane Ross**
  Virginia Tech
  (Invited) **The interplanetary transport network: mechanisms of fast transport in the solar system** [98] - [Link to Recording] [99]

- **Conor Benson**
  University of Colorado
  YORP-Driven Spin State Evolution of Meter-Sized Asteroids [100] - [Link to Recording] [101]

- **Marielle Pellegrino**
  University of Colorado Boulder
  **Influence of Solar Radiation Pressure on the Luni-Solar Resonance Structure of MEO satellites** [102]

11:30 AM - 11:50 AM EDT

**Near Earth Asteroids (Session 401)**

Chair: Althea Moorhead

- **Jean-Luc Margot**
  University of California, Los Angeles
  Measurements of Yarkovsky Drift Rates for 247 Near-Earth Asteroids [103]

- **Jorge Pérez-Hernández**
  Universidad Nacional Autonoma de Mexico (UNAM)
  The Yarkovsky effect for (99942) Apophis and observational predictions for the upcoming 2020-2021 close approach to Earth [104] -- Duncombe Student Research Prize Winner - [Link to Recording] [105]

- **Bruno Chagas**
  UNESP
  Deflect an hazardous asteroid through kinetic impact [106] ([Poster PDF] [107])
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Published on Division on Dynamical Astronomy (https://dda.aas.org)

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<tr>
<td>12:00 PM - 1:00 PM EDT</td>
<td><strong>DDA Members’ Meeting</strong></td>
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<tr>
<td>7:10 PM - 7:30 PM EDT</td>
<td><strong>Solar System Evolution: numerical methods and long-term stability (Session 402)</strong></td>
<td>Sarah Morrison</td>
</tr>
<tr>
<td>7:30 PM - 7:55 PM EDT</td>
<td><strong>Formation and Evolution of Planetary System Architectures (Session 403)</strong></td>
<td>Sarah Millholland</td>
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### 7:10 PM - 7:30 PM EDT

**Solar System Evolution: numerical methods and long-term stability (Session 402)**

Chairs: Sarah Morrison

- **Daniel Scheeres**
  University of Colorado
  Janus: A NASA SIMPLEX mission to explore two NEO Binary Asteroids [108] - [Link to Recording](109)

- **Oscar Fuentes-Munoz**
  University of Colorado, Boulder
  Semi-analytical long-term propagation of asteroids [110] - [Link to Recording](111)

- **Kevin Zhang**
  Cornell University
  GLISSE: A GPU-optimized planetary system integrator with application to orbital stability calculations [112] - [Link to Recording](113)

- **Yukun Huang**
  University of British Columbia
  Four Billion Year Stability of the Earth-Mars Belt [114] ([Poster PDF](115))

### 7:30 PM - 7:55 PM EDT

**Formation and Evolution of Planetary System Architectures (Session 403)**

Chair: Sarah Millholland

- **Ruth Murray-Clay**
  University of California, Santa Cruz
  A Giant Impacts Phase for Giant Planets [116] - [Link to Recording](117)

- **Isabel Angelo**
  University of California, Los Angeles
  The Dynamical Origins of Kepler-1656b’s Extreme Eccentricity [118] ([Poster PDF](119))

- **Sarah Morrison**
  Missouri State University
  Producing Close-in Super-Earths and Mini-Neptunes in Resonant Chains During In Situ Planet Formation [120]

- **Yuji Matsumoto**
  Academia Sinica Institute of Astronomy and Astrophysics
  Breaking resonant chains triggered by long-term mass evolution [121] - [Link to Recording](122)

- **Juliette Becker**
  Caltech
  The Origins of Multi-Planet Systems with Misaligned, Nearby Companions [123] - [Link to Recording](124)
10:00 AM - 10:20 AM EDT

**Meteoroids and Comets (Session 500)**

Chair: David Minton

- **Mark Moretto**
  - University of Colorado
  - The Perturbative Effects of Gas Drag at Active Comets: Equations of Motion for the Mean Elements under General Inverse-Square Perturbations [125]

- **Luke Dones**
  - Southwest Research Institute
  - Splitting as a Source of Periodic Comets [126] - Link to Recording [127]

- **Althea Moorhead**
  - NASA Marshall Space Flight Center
  - Realistic gravitational focusing of meteoroid streams [128] - Link to Recording [129]

10:20 AM - 10:40 AM EDT

**Outer Solar System: dynamics and observations of TNOs (Session 501)**

Chair: Matthew Hedman

- **Benjamin Proudfoot**
  - Brigham Young University
  - Unlocking the mystery of the Haumea Family [130] - Link to Recording [131]

- **Ann-Marie Madigan**
  - CU Boulder
  - Collective gravity in the Outer Solar System [132] - Link to Recording [133]

- **Malena Rice**
  - Yale University
  - Surveying the Trans-Neptunian Solar System with TESS [134] -- Duncombe Student Research Prize Winner

- **William Oldroyd**
  - Northern Arizona University
  - Constraining the Outer Solar System Perihelion Gap [135] - Link to Recording [136]

10:40 AM - 11:05 AM EDT

**Planets and Planetesimals around Highly Evolved Stars (Session 502)**

Chairs: Cristobal Petrovich

- **Catriona McDonald**
  - University of Warwick
  - How the breakup of triaxial asteroids generates debris reservoirs for white dwarf pollution [137] (Poster PDF [138])

- **Christopher O'Connor**
  - Cornell University
  - High-e migration of planetesimals around polluted white dwarfs [139]

- **Alexander Stephan**
  - UCLA
  - Social Distancing for Stars: A hidden friend for WD
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<td>Planetary System Obliquities and Tidal Evolution (Session 503)</td>
<td>Smadar Naoz</td>
<td>Dynamics of Colombo's Top: Generating Exoplanet Obliquities from Planet-Disk Interactions [144] -- Duncombe Student Research Prize Winner - Link to Recording [145]</td>
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<tr>
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<td>Yubo Su</td>
<td>Formations of Ultra-Short-Period Planets by Obliquity-Driven Tidal Runaway [147] - Link to Recording [147]</td>
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<td>Sarah Millholland</td>
<td>Convective turbulent viscosity acting on equilibrium tidal flows: new frequency scaling of the effective viscosity [149] - Link to Recording [149]</td>
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<td>Craig Duguid</td>
<td>Disk dispersal-driven instabilities: application to hot Neptunes [150] - Link to Recording [151]</td>
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<tr>
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<td>Cristobal Petrovich</td>
<td>Retrograde rotating exoplanets experience obliquity excitations in an eccentricity-enabled resonance [152] - Link to Recording [153]</td>
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<td>Steven Kreyche</td>
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<tr>
<td>1:25 PM - 1:50 PM EDT</td>
<td>The Center of Galaxies (Session 504)</td>
<td>Alexander Stephen</td>
<td>A Hidden Friend for the Galactic Center Black Hole, Sgr A* [154] - On Socially Distant Neighbors: Binaries as...</td>
</tr>
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*References: [140], [141], [142], [143], [144], [145], [146], [147], [148], [149], [150], [151], [152], [153], [154]*
Aleksey Generozov  
University of Colorado, Boulder  
Density Probes in the Galactic Center [155]
The Hills Mechanism and the Galactic Center S-stars [156]

Heather Wernke  
University of Colorado  
Photometry of Simulated Eccentric Nuclear Disks [157]

Alexander Rodriguez  
University of Colorado  
Galactic Merger Implications for Eccentric Nuclear Disks [158]

1:50 PM - 2:00 PM  
Kat Volk, SOC and DDA chair  
Meeting Wrap Up, Final Announcements

Asynchronous Poster Presentations (Session 103)
Discussion via Slack
Available all week

M. Clement  
Earth and Planets Laboratory, Carnegie Institution of Washington  
New initial conditions for terrestrial planet formation derived from high resolution simulations of planetesimal accretion [159]  
Poster PDF [160]

M Cuk  
SETI Institute, "Barrel Instability" for Elongated Secondaries in Binary Asteroids [161]  
Poster PDF [162]

C. Filion  
Department of Physics & Astronomy, The Johns Hopkins University  
The Low Mass Stellar Initial Mass Function of the Ultra Faint Dwarf Spheroidal Galaxy Boötes I [163]  
Poster PDF [164]

P. Gratia  
JP Morgan Chase (formerly Northwestern University)  
Eccentricity and the Lifetimes of Closely-Spaced Five-Planet Systems [165]  
Poster PDF [166]

A. Moorhead  
NASA Marshall Space Flight Center  
Is LaTeX use correlated with the number of equations in a manuscript? [167]  
Poster PDF [168]

D. Veras  
University of Warwick  
A full-lifetime planetary simulation: from stellar birth cluster evolution to planetary destruction around white dwarfs [169]  
Poster PDF [170]

K. Volk  
Lunar and Planetary Lab, The University of

Dynamical instabilities in systems of multiple short-period planets are
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Arizona
likely driven by secular chaos: a case study of Kepler-102 [171] - Poster PDF [172]

Source URL: https://dda.aas.org/meetings/2020/schedule

Links
[1] http://r20.rs6.net/tn.jsp?f=001h_uDgQBPS40tK0oZkqE-M2xHeG3ff6oWv5Yb0B6SZBNda5GNFpMd3Js4_j5nOtDU3Uuxzg7Oby5uFDcNq1enYelcCF-vjOU6R6ix3X34iVUjgSSxQmkmWMxFqF0jFOB50j9N9Zs7s<hVb80vLLby6jfd9rCQdzzQC&amp;c=SZaoQUqPZxt4AGZhoGoD1T2-vDq_gBNFjTc45Z-gKCD-aO4jGkH8Sw==&amp;cH=nvJX8yOwOk3oP6qweieQ3-Q5hV2iDd-M1UYpC0NMX3rypeRueMuQw==
[2] https://ui.adsabs.harvard.edu/search/fq=%7B!type%3Daqp%20v%3D%24fq_database%7D&amp;fq_database=(database%3Aastronomy)&amp;q=series%3AAAS%2FDivision%20of%20Dynamical%20Astronomy%20Meeting%20year%3A2020&amp;sort=bibcode%20asc%2C%20bibcode%20asc&amp;p_=0
[3] https://ui.adsabs.harvard.edu/abs/2020DDA....5110001M/abstract
[6] https://ui.adsabs.harvard.edu/abs/2020DDA....5110003G/abstract
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[41] https://ui.adsabs.harvard.edu/abs/2020DDA....5110031R/abstract
[42] https://ui.adsabs.harvard.edu/abs/2020DDA....5110032A/abstract
[43] https://vimeo.com/441850172
[44] https://ui.adsabs.harvard.edu/abs/2020DDA....5120205C/abstract
[45] https://vimeo.com/441125516
[46] https://ui.adsabs.harvard.edu/abs/2020DDA....5120203P/abstract
[47] https://ui.adsabs.harvard.edu/abs/2020DDA....5120204W/abstract
[49] https://ui.adsabs.harvard.edu/abs/2020DDA....5120205C/abstract
[50] https://vimeo.com/441125516
[51] https://ui.adsabs.harvard.edu/abs/2020DDA....5120301S/abstract
[52] https://vimeo.com/441849058
[53] https://ui.adsabs.harvard.edu/abs/2020DDA....5120302P/abstract
[54] https://ui.adsabs.harvard.edu/abs/2020DDA....5120303M/abstract
[56] https://ui.adsabs.harvard.edu/abs/2020DDA....5120304R/abstract
[57] https://vimeo.com/442389799
[58] https://ui.adsabs.harvard.edu/abs/2020DDA....5120305M/abstract
[60] https://ui.adsabs.harvard.edu/abs/2020DDA....5120306H/abstract
[61] https://ui.adsabs.harvard.edu/abs/2020DDA....5120401F/abstract
[62] https://ui.adsabs.harvard.edu/abs/2020DDA....5120402L/abstract
[63] https://vimeo.com/442102194
[64] https://ui.adsabs.harvard.edu/abs/2020DDA....5120403M/abstract
[65] https://vimeo.com/441147580
[66] https://ui.adsabs.harvard.edu/abs/2020DDA....5120404G/abstract
[67] https://vimeo.com/442142444
[68] https://ui.adsabs.harvard.edu/abs/2020DDA....5120501A/abstract
[69] https://vimeo.com/441687597
[70] https://ui.adsabs.harvard.edu/abs/2020DDA....5120502E/abstract
[71] https://ui.adsabs.harvard.edu/abs/2020DDA....5120503C/abstract
[72] https://vimeo.com/441881669
[73] https://ui.adsabs.harvard.edu/abs/2020DDA....5120504H/abstract
[74] https://vimeo.com/441643040
[75] https://ui.adsabs.harvard.edu/abs/2020DDA....5120505N/abstract
[76] https://ui.adsabs.harvard.edu/abs/2020DDA....5120506Y/abstract
[77] http://dda.aas.org/sites/dda.aas.org/files/2020Meeting/Public-Poster-PDFs/205.06-Young.pdf
[78] https://ui.adsabs.harvard.edu/abs/2020DDA....5130001T/abstract
[79] https://vimeo.com/441687327
[80] https://ui.adsabs.harvard.edu/abs/2020DDA....5130002G/abstract
[81] https://ui.adsabs.harvard.edu/abs/2020DDA....5130003G/abstract
[82] https://vimeo.com/442144293
[83] https://ui.adsabs.harvard.edu/abs/2020DDA....5130004Q/abstract
[84] https://ui.adsabs.harvard.edu/abs/2020DDA....5130006R/abstract
[85] https://ui.adsabs.harvard.edu/abs/2020DDA....5130005R/abstract
[86] https://ui.adsabs.harvard.edu/abs/2020DDA....5130101V/abstract
[87] https://vimeo.com/442212725
[88] https://ui.adsabs.harvard.edu/abs/2020DDA....5130102X/abstract
[89] https://ui.adsabs.harvard.edu/abs/2020DDA....5130103A/abstract
[90] https://vimeo.com/442072344
[91] https://ui.adsabs.harvard.edu/abs/2020DDA....5130104C/abstract
[92] https://vimeo.com/442070790
[93] https://ui.adsabs.harvard.edu/abs/2020DDA....5130105L/abstract
[94] https://vimeo.com/442143048
[95] https://ui.adsabs.harvard.edu/abs/2020DDA....5130201M/abstract
[96] https://ui.adsabs.harvard.edu/abs/2020DDA....5140001C/abstract
[97] https://vimeo.com/438295673
[98] https://ui.adsabs.harvard.edu/abs/2020DDA....5140002R/abstract
[154] https://ui.adsabs.harvard.edu/abs/2020DDA....5150401N/abstract
[155] https://ui.adsabs.harvard.edu/abs/2020DDA....5150402R/abstract
[156] https://ui.adsabs.harvard.edu/abs/2020DDA....5150403G/abstract
[157] https://ui.adsabs.harvard.edu/abs/2020DDA....5150404W/abstract
[158] https://ui.adsabs.harvard.edu/abs/2020DDA....5150405R/abstract
[159] https://ui.adsabs.harvard.edu/abs/2020DDA....5110303C/abstract
[161] https://ui.adsabs.harvard.edu/abs/2020DDA....5110304C/abstract
[163] https://ui.adsabs.harvard.edu/abs/2020DDA....5110305F/abstract
[165] https://ui.adsabs.harvard.edu/abs/2020DDA....5110306G/abstract
[167] https://ui.adsabs.harvard.edu/abs/2020DDA....5110307M/abstract
[169] https://ui.adsabs.harvard.edu/abs/2020DDA....5110302V/abstract
[171] https://ui.adsabs.harvard.edu/abs/2020DDA....5110301V/abstract