



2021 Virtual DDA Meeting Schedule

2021 Virtual 52nd Annual Meeting of the DDA

Q&A/Discussion Webinar Schedule

See the main meeting website for registration information: <https://aas.org/meetings/dda52> [1]

The abstracts are available [via NASA/ADS](#) [2] and in a Google Doc here: [DDA-52-Abstract-Book](#) [3]

Many of the pre-recorded presentations and PDF posters are now linked below for public viewing! (All presentations are available for viewing on the [registrant-only DDA meeting website](#) [4].)

All times below are EDT (UTC-4)

| Monday, May 17 | | | |
|-----------------|------------------|--|---|
| 11:30-12:00 EDT | | | virtual coffee/socializing |
| 12:00-12:05 EDT | | Ruth Murray-Clay (SOC Chair, DDA Vice-Chair) | Welcome/Announcements |
| 12:05-12:30 EDT | | | Evolution and Migration in Exoplanet Systems: Hot and Warm Jupiters (Session 100) |
| | | | Chair: Sarah Millholland |
| | Rebekah Dawson | Pennsylvania State University | Precise Characterization of a 2:1 Resonant Pair: The Warm Jupiter TOI-216c and Eccentric Warm Neptune TOI-216b -- link to recording [5] |
| | Jonathan Jackson | Pennsylvania State University | Observable Predictions from Perturber-coupled High-eccentricity Migration of Warm Jupiters -- link to recording [6] |
| | Mor Rozner | Technion – Israel Institute of Technology | Origin Of Hot & Warm Jupiters From Enhanced High Eccentricity Migration -- link to recording [7] |
| | Malena Rice | Yale University | Revisiting the Dynamics of the HD 80606 Planetary System |

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| 12:30-12:50 EDT | Kassandra Anderson | Princeton University | On a Possible Solution to the Tidal Realignment Problem for Hot Jupiters -- link to recording [8] |
| | Evolution and Migration in Exoplanet Systems: Sub-Neptunes and Super-Earths (Session 101) Chair: Rebekah Dawson | | |
| 13:00-14:30 EDT | Sam Hadden | Harvard-Smithsonian Center for Astrophysics | Inferring Migration Histories of Resonant Planets |
| | Mariah MacDonald | Pennsylvania State University | Constraining the formation of super-Earths via resonances -- link to recording [9] |
| | Juliette Becker | Caltech | Forming Ultra-Short-Period Planets Via Disk Migration in a Sub-Keplerian Disk -- link to recording [10] |
| | Isabel Angelo | University of California, Los Angeles | Origin of Kepler-1656b's Extreme Eccentricity -- link to recording [11] |
| Plenary Session (Session 102) Invited Seminar Chair: Smadar Naoz | | | |
| 14:30-15:00 EDT | Sherard Robbins | Visceral Change | Power and Privilege break |
| 15:00-15:30 EDT | Advances in Simulations of Exoplanet Evolution (Session 103) Chair: Daniel Tamayo | | |
| | Daniel Scheeres | University of Colorado, Boulder | Tracking the Minimum Energy Function of Disassociated N-Body Systems |
| | David Hernandez | Center for Astrophysics Harvard & Smithsonian | Are long term N-body simulations reliable? |
| | Shirui Peng | California Institute of Technology | Interactions Among Non-Interacting Particles in Planet Formation Simulations -- link to recording [12] |
| | Gongjie Li | Georgia Institute of Technology | GRIT: a simulation package for GRavitationally InteracTing Rigid-Bodies -- link to |

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| | Steven Kreyche | University of Idaho | recording [13] Exploring tidal obliquity variations with SMERCURY-T -- PDF Poster [14] |
| | Jackson Barnes | Michigan State University | The Role of Gravitational Collapse in Planetesimal Formation |
| 15:30-15:55 EDT | Dynamical Stability in Exoplanet Systems (Session 104) Chair: Dimitri Veras | | |
| | Daniel Tamayo | Princeton University | On the mechanisms for instabilities in compact multiplanet systems -- link to recording [15] |
| | Daniel Jones | Brigham Young University | Constraining the Physical and Orbital Parameters of Kepler Systems using Stability Criteria |
| | Sacha Gavino | Niels Bohr Institute | Anomalously long-lived compact configurations in three-planet systems -- link to recording [16] |
| | Aleksandr Mylläri | St. George's University | Testing the three-body stability limit at very long time |
| | Samuel Yee | Princeton University | How Close are Compact Multi-Planet Systems to the Stability Limit? |
| | Elizabeth Ellithorpe | University of Oklahoma | Possible Origins of Planetary Spin-Orbit Misalignment in Binary Systems -- link to recording [17] |
| 15:55-16:00 EDT | short break | | |
| 16:00-16:15 EDT | Dynamics of Dark Matter (Session 105) Chair: Elena D'Onghia | | |
| | Jorge Moreno | Pomona College | (Invited) Dark matter free galaxies in LCDM |
| | Sioree Ansar | Indian Institute of Astrophysics, Bangalore, Center for Computational Astrophysics, Flatiron Institute | Determining Dark Matter Halo Properties using Visible Matter Observations of galaxies: A novel technique applied to high spinning halo of UGC5288 |
| | Hayden Foote | University of Arizona | Studying Dynamical Friction on the Large Magellanic Cloud as a Dark Matter Probe |
| 16:15-16:40 EDT | Impacts, Collisions, and Disruptions (Session 106) | | |

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| | Chair: Matija Cuk | | |
| | Konstantin Batygin | California Institute of Technology | Formation of Galilean Satellites in a Decretion Disk -- link to recording [18] |
| | Sierra Ferguson | Arizona State University | Examination of elliptical craters on Saturn's moons Tethys and Dione constrain their ages and origin |
| | Gavin Brown | University of Colorado Boulder | Loss of Energy and Angular Momentum in Disrupting N-body Systems |
| | Matthew Clement | Carnegie Institution of Washington | Dynamical avenues for Mercury's enigmatic origin -- link to recording [19] |
| | Oscar Fuentes-Munoz | University of Colorado Boulder | NEO collision and close flyby probabilities using semi-analytical long-term propagation -- link to recording [20] |
| 16:40-17:00 EDT | end of day virtual socializing | | |

Tuesday, May 18

11:30-12:00 EDT

virtual coffee/socializing

12:00-12:35 EDT

Dynamics Leading to Gravitational Waves (Session 200)

Chair: Rosemary Wyse

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| Carl Rodriguez | Carnegie Mellon University | (Invited) Dynamical Formation of LIGO's Binary Black Hole Mergers -- link to recording [21] |
| Yubo Su | Cornell University | Spin-Orbit Misalignments in Tertiary-Induced Black-Hole Binary Mergers: Theoretical Analysis -- link to recording [22] |
| Michelle Vick | CIERA, Northwestern University | The Impact of Tidal Dissipation on the Eccentric Onset of Common Envelope Phases -- link to recording [23] |
| Tatsuya Akiba | University of Colorado | (Duncombe Student |

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| | Boulder | | Research Prize Winner) The Beginning of an END -- link to recording [24] |
| | Smadar Naoz | University of California, Los Angeles | Gravitational Wave Sources at the Heart of Galaxies -- link to recording [25] |
| | Huiyi Wang | UCLA | Gravitational-Wave Signatures from Compact Object Binaries in the Galactic Center |
| 12:35-12:50 EDT | Clusters (Session 201) | | |
| | Chair: Rosemary Wyse | | |
| | Aleksey Generozov | University of Colorado | Origin of the S star cluster |
| | Laura Watkins | AURA for ESA, ESA Office, Space Telescope Science Institute | Energy Equipartition in Galactic Globular Clusters -- link to recording [26] |
| | Vaclav Pavlik | Indiana University | Star cluster evolution towards energy equipartition |
| 12:50-13:00 EDT | short break | | |
| 13:00-14:00 EDT | Plenary Session (Session 202) | | |
| | Townhall Discussion about DEI Moderated by Sherard Robbins | | |
| | Chair: Ruth Murray-Clay | | |
| 14:00-14:05 EDT | short break | | |
| 14:05-14:25 EDT | Special Session | | |
| | The Dynamics of Building a Dynamics Community: Strategies to make graduate programs more inclusive (Session 203) | | |
| | Chair: Kat Volk | | |
| | Smadar Naoz | University of California, Los Angeles | DEI efforts at UCLA physics and astronomy department |
| | Michael Petersen | University of Edinburgh | The Royal Observatory Edinburgh Institute for Astronomy's experience building an Diversity, Equity, and Inclusion team |
| 14:25-15:00 EDT | Evolution of Stellar Multiples (Session 204) | | |
| | Chair: Smadar Naoz | | |
| | Tjarda Boekholt | University of Oxford | Gargantuan chaotic gravitational three-body |

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|-----------------|---------------------------|--|---|
| | Eliot Halley Vrijmoet | RECONS/Georgia State University | systems and their irreversibility to the Planck length Orbital Architectures of M Dwarf Systems -- PDF Poster [27] |
| | John Zanzazi | University of Toronto | Tidal Circularization of Binaries by Resonance Locking -- link to recording [28] |
| | Logan Pearce | University of Arizona | An investigation of chaotic planetary dynamics induced by the wide stellar binary companion to Boyajian's Star |
| | Marguerite Epstein-Martin | California Institute of Technology | Exciting Stellar Obliquities in Triple Star Systems |
| | Silvia Toonen | University of Amsterdam | (Invited) The evolution of stellar triples |
| 15:00-15:30 EDT | | break | |
| 15:30-15:55 EDT | | Tides and Interiors (Session 205) | |
| | | Chair: Marina Brozovic | |
| | Matija Cuk | SETI Institute | Recent Orbital Evolution of the Inner Moons of Saturn -- link to recording [29] |
| | Jean-Luc Margot | University of California, Los Angeles | Measurements of the spin axis precession and length-of-day variations of Venus -- link to recording [30] |
| | Alyssa Rhoden | Southwest Research Institute | The effects of bombardment on the thermal-orbital evolution of icy satellites |
| | Matthew Walker | Planetary Science Institute | Tidal Heating of Ice Shells with Variable Eccentricity -- link to recording [31] |
| | Joseph A'Hearn | University of Idaho | Ice Giant Ring Seismology |
| 15:55-16:00 EDT | | short break | |
| 16:00-16:25 EDT | | Physical Structures of Exoplanets, Accretion, and Impacts (Session 206) | |
| | | Chair: Christopher O'Connor | |
| | Spencer Wallace | University of Washington, Seattle | Understanding Planetary Accretion at Short Orbital Periods -- link to recording [32] |
| | Jiayin Dong | Penn State | (Duncombe Student Research Prize) |

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| | | | Winner) Boundary Layer Circumplanetary Accretion: How Fast Could an Unmagnetized Planet Spin Up Through Its Disk? |
| | Nader Haghighipour | Planetary Science Institute | Accurate Calculations of Planetesimal-Envelope Interactions in the Core Accretion Model |
| | Renata Frelikh | UC Santa Cruz | Clues in the Giant Exoplanet Eccentricity Distribution Point to Planet-Planet Impacts -- link to recording [33] |
| | Santiago Torres | UCLA | Raining Rocks in Exo-Worlds |
| 16:25-17:00 EDT | | | end of day virtual socializing |

Wednesday, May 19

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|-----------------|-----------------------------|------------------------------------|--|
| 11:30-12:00 EDT | | | virtual coffee/socializing |
| 12:00-12:45 EDT | | | Plenary Session (Session 300) |
| | | | Vera Rubin Early Career Prize Lecture |
| | | | Chair: Ruth Murray-Clay |
| | Jacqueline Faherty | American Museum of Natural History | Tales in Stellar Motion |
| 12:45-12:50 EDT | | | short break |
| 12:50-13:20 EDT | | | Special Session |
| | | | How Gaia reveals the Galaxy's secrets: results local to the Sun (Session 301) |
| | | | Chair: Robyn Sanderson |
| | Ruth Angus | AMNH & Flatiron | (Invited) Kinematic ages for cool stars -- link to recording [34] |
| | J. Davy Kirkpatrick | Caltech/IPAC | (Invited) Using Gaia Astrometry to Anchor Parallaxes for Nearby Brown Dwarfs |
| | Raquel Martinez | University of Texas, Austin | (Invited) Leveraging Large-Sky Surveys in the <i>Gaia</i> Era to Reveal the Nature of Wide Substellar Companions -- link to recording [35] |
| | Daniella Bardalez Gagliuffi | American Museum of Natural History | (Invited) System Architectures as Fossils of Brown Dwarf and |

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| | | | Giant Planet Formation -- link to recording [36] |
| | Zephyr Penoyre | University of Cambridge | Identifying Unresolved Binaries from Astrometric Error -- link to recording [37] |
| | Melinda Soares-Furtado | University of Wisconsin-Madison | (Invited) Using Gaia to Search for Planetary Engulfment Sites |
| | Wilma Trick | Max Planck Institute for Astrophysics | (Invited) The Galactic bar's outer Lindblad resonance (OLR) in Gaia's action-angle space |
| 13:20-13:25 EDT | | short break | |
| 13:25-13:55 EDT | | Special Session How Gaia reveals the Galaxy's secrets: from local to galactic scale (Session 302) | |
| | | Chair: Sukanya Chakrabarti | |
| | Aneesh Naik | University of Nottingham | The Local Acceleration Field: Insights from Deep Learning -- link to recording [38] |
| | Catherine Zucker | Harvard University | (Invited) Probing the Structure and Dynamics of our Local Interstellar Medium with <i>Gaia</i> -- link to recording [39] |
| | Cameron Swiggum | University of Wisconsin | Feedback-induced Radial Expansion at the Core of the Orion Complex -- link to recording [40] |
| | Keith Hawkins | University of Texas, Austin | (Invited) Galactic Archaeology: Understanding our Milky Way through Chemodynamics |
| | Adrian Price-Whelan | Flatiron Institute | (Invited) Orbital Torus Imaging: Using Element Abundances to Map Orbits and Mass in the Milky Way -- link to recording [41] |
| | Tommaso Marchetti | European Southern Observatory | (Invited) Searching for unbound stars in Gaia EDR3 -- link to recording [42] |
| 13:55-14:00 EDT | | short break | |
| 14:00-14:25 EDT | | Population-Level Exoplanet Demographics (Session 303) | |
| | | Chair: Alexander Stephan | |
| | Thea Faridani | UCLA | Hiding Planets Near and |

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| | Emily Safsten | The Pennsylvania State University | Far: Predicting Hidden Companions for Known Planetary Systems Nature versus Nurture: Using a Bayesian framework to study correlations between planetary properties and stellar ages |
| | Phoebe Sandhaus | Pennsylvania State University | Simulating the Effects of Outer Giant Planets on Inner Super-Earths with In Situ Formation Models |
| | Sarah Millholland | Princeton University | Evidence for a Non-Dichotomous Solution to the Kepler Dichotomy -- link to recording [43] |
| | Christopher Spalding | Princeton University | Metallicity matters in the tidal damping of stellar obliquities -- link to recording [44] |
| 14:25-14:30 EDT | short break | | |
| 14:30-14:55 EDT | Orbital Resonance in Multi-Planet Systems (Session 304) Chair: Sam Hadden | | |
| | Nora Bailey | University of Chicago | Planetary Period Ratio Sculpting Near Second-Order Mean-Motion Resonances -- link to recording [45] |
| | Max Goldberg | California Institute of Technology | (Duncombe Student Research Prize Winner) A Tidal Origin for a 3-body Resonance in Kepler-221 |
| | Jack Lissauer | NASA Ames Research Center | Three-Body Resonances Among Kepler Planets |
| | Darin Ragozzine | Brigham Young University | Towards a Photodynamical Analysis of all Kepler Multi-Transiting Systems -- link to recording [46] |
| | Drew Weisserman | University of Michigan | A Dynamical Analysis of the Kepler-80 System of Six Transiting Planets |
| 14:55-15:30 EDT | break | | |
| 15:30-15:55 EDT | The Hill Sphere, Trojans, Horseshoe Orbits, and Resonances (Session 305) Chair: Althea Moorhead | | |

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| | Kat Volk | University of Arizona | Mapping Neptune's resonances into the distant solar system -- link to recording [47] |
| | Conor Benson | University of Colorado | Resonant Tumbling YORP for Defunct Artificial Satellites -- link to recording [48] |
| | Jose Castro-Cisneros | University of Arizona | Near-Earth Asteroid Kamo`oalewa as Lunar Ejecta |
| | Renu Malhotra | University of Arizona | What really goes on in the chaotic zones of the planets, from Earth to Neptune |
| | Travis Yeager | Lawrence Livermore National Lab | The Lifetimes of Earth Trojan Asteroids and Tadpole Orbits |
| 15:55-16:00 EDT | | short break | |
| 16:00-17:00 EDT | | Mentoring Event | |
| | | Chair: Juliette Becker | |
| 17:00-17:30 EDT | | Student Discussion with Rubin Prize Speaker | |
| | | Chair: | |
| 17:00-17:30 EDT | | end of day virtual socializing | |

Thursday, May 20

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|-----------------|---------------------|--|---|
| 11:30-12:15 EDT | | Plenary Session (Session 400) | |
| | | Dirk Brouwer Career Prize Lecture | |
| | | Chair: Kat Volk | |
| | Lennart Lindegren | Lund University | Models and Methods in Optical Astrometry |
| 12:15-12:20 EDT | | short break | |
| 12:20-12:50 EDT | | Special Session | |
| | | How Gaia Reveals the Galaxy's Secrets: Results on the Galactic Scale Part 1 (Session 401) | |
| | | Chair: Melinda Soares-Furtado | |
| | Sukanya Chakrabarti | Rochester Institute of Technology | (Invited) Fundamental Galactic parameters from direct acceleration measurements -- link to recording [49] |

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| | Elena D'Onghia | University of Wisconsin, Madison | (Invited) Footprints of the bar and spiral-arm resonances in the solar neighborhood from Gaia-EDR3 |
| | Stacy McGaugh | Case Western Reserve University | The Imprint of Spiral Arms on the Galactic Rotation Curve -- link to recording [50] |
| | Zhaozhou Li | Shanghai Jiao Tong University | A Novel Dynamical Modeling Method Based on the Data-driven Distribution Function |
| | Andres del Pino Molina | Space Telescope Science Institute | Machine Learning glasses for the eyes of Gaia: The Sagittarius Dwarf Spheroidal Galaxy in 6D. -- link to recording [51] |
| | Ana Bonaca | Harvard University | (Invited) Reconstruction of the dark matter distribution in the Milky Way -- link to recording [52] |
| 13:00-13:30 EDT | Special Session How Gaia Reveals the Galaxy's Secrets: Results on the Galactic Scale Part 2 (Session 402) Chair: Ana Bonaca | | |
| | Alis Deason | Durham University | (Invited) The Galactic Halo in the Gaia Era |
| | Michael Petersen | University of Edinburgh | Bringing Milky Way and Large Magellanic Cloud potentials to life to explain the Milky Way halo disequilibrium |
| | Carrie Fillion | The Johns Hopkins University | Little Galaxy, Big Envelope: Blue Stars in the Outskirts of the Boötes I Ultra Faint Dwarf Galaxy |
| | Rachael Beaton | Princeton University | (Invited) Gaia Parallaxes and the ExtraGalactic Distance Scale -- link to recording [53] |
| | Annie Robin | Institut Utinam | (Invited) A fully consistent dynamical model of the Milky Way facing Gaia data |
| 13:30-14:00 EDT | break | | |
| 14:00-14:25 EDT | Galactic Streams and Structures (Session 403) Chair: Alis Deason | | |

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| | Eric Mendelsohn | Rensselaer Polytechnic Institute | Estimate of the Mass and Radial Profile of the Orphan Stream's Dwarf Galaxy Progenitor Using MilkyWay @ home |
| | Tjitske Starkenburg | Northwestern University | Debris at the low-mass end: predictions for stellar halos, streams and shells around the LMC and its siblings |
| | Thomas Donlon | Rensselaer Polytechnic Institute | A Trifurcated Sagittarius Stream in the South -- link to recording [54] |
| | Arpit Arora | University of Pennsylvania | On the adiabaticity of action space clustering of tidal streams via potential modelling |
| | Scott Lucchini | University of Wisconsin - Madison | The Magellanic Stream: Implications of the Magellanic Corona and new Orbital Histories of the Clouds |
| 14:25-14:45 EDT | Galactic Morphologies and Mergers (Session 404) Chair: Adrian Price-Whelan | | |
| | Dhanesh Krishnarao | Space Telescope Science Institute | Finding the Ultra-Harmonic Resonance from Photometry Alone |
| | Nicolas Garavito-Camargo | University of Arizona | The clustering of orbital poles in the Milky Way's halo induced by the Large Magellanic Cloud -- link to recording [55] |
| | Katie Chamberlain | University of Arizona | Frequency and Dynamics of Dwarf Galaxy Pairs over Cosmic Time |
| 14:45-14:50 EDT | short break | | |
| 14:50-15:20 EDT | Populations of Small Bodies (Session 405) Chair: Joseph Spitale | | |
| | Fred Adams | University of Michigan | Capture of Interstellar Objects by our Solar System -- link to recording [56] |
| | Stanley Dermott | University of Florida | Dynamical evolution of the inner asteroid belt -- link to recording [57] |
| | Debora Pavela | University of Belgrade, Faculty of Mathematics | The Karma asteroid family: membership, age and evolution |
| | Althea Moorhead | NASA Marshall Space Flight Center | Fully debiased meteor radiants and speeds |

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| | | | and their constraints on dynamical models -- link to recording [58] |
| | Dan Li | NSF's NOIRLab | The random walk evolution of asteroid families -- PDF Poster [59] |
| | Alex Meyer | University of Colorado Boulder | Modeling Fully Coupled Dynamics of Janus Binary Asteroid Mission Targets -- link to recording [60] |
| 15:20-15:45 EDT | Rings, Disks, and Migration (Session 406) | | |
| | Chair: Joseph A'hearn | | |
| | Arcelia Hermosillo Ruiz | University of California, Santa Cruz | (Duncombe Student Research Prize Winner) The Impact of Stochastic Migration on Weak Resonances in The Kuiper Belt -- link to recording [61] |
| | Matthew Hedman | University of Idaho | Recording history in planetary rings with density waves |
| | Glen Stewart | University of Colorado | Local Gravitational Instabilities Modeled as a Dynamical System |
| | Meredith MacGregor | University of Colorado at Boulder | (Invited) Gaps and Wings and Eccentricities - ALMA Observations Reveal the Dynamics of Nearby Debris Disks |
| | Daniel Sega | University of Colorado, Boulder | Interactions within Self-Gravity wakes and bending waves based on the Mimas 5:3 Bending wave -- link to recording [62] |
| 15:45-16:00 EDT | break | | |
| 16:00-17:00 EDT | Networking Event | | |
| | Chair: Darin Ragozzine | | |
| 17:00-17:30 EDT | end of day virtual socializing | | |

Friday, May 21

11:30-12:00 EDT virtual coffee/socializing

11:30-12:00 EDT **Student Discussion with Brouwer Prize Speaker**

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| | Chair: | | |
| 12:00-12:25 EDT | KBOs and Multiples (Session 501) | | |
| | Chair: Darin Ragozzine | | |
| | Alexandre Correia | University of Coimbra | Evolution of the Pluto-Charon binary under tides |
| | Sricharan Balaji | UC Santa Cruz | Can the Kuiper Belt's 3:2 orbital distribution result from stability sculpting? |
| | Ian Matheson | University of Arizona | A measurement of the Kuiper Belt midplane from AI-classified objects |
| | Hunter Campbell | University of Oklahoma | Stability and Formation of Ultra-Wide Kuiper Belt Binaries -- link to recording [63] |
| | Nathan Kaib | University of Oklahoma | Inferring the primordial Pluto-mass population of the Kuiper belt -- link to recording [64] |
| 12:25-12:30 EDT | short break | | |
| 12:30-12:55 EDT | TNOs and Planet X (Session 502) | | |
| | Chair: Matthew Clement | | |
| | Kalee Anderson | University of Oklahoma | Effects on the Inclination Distribution of the Detached Kuiper Belt by a Distant Planet |
| | Dallin Spencer | Brigham Young University- Provo | Investigating Non-Keplerian Effects in Trans-Neptunian Multiples -- link to recording [65] |
| | Kevin Napier | University of Michigan | No Evidence for Orbital Clustering in the Extreme Trans-Neptunian Objects |
| | William Oldroyd | Northern Arizona University | Planet X Can Cause the Outer Solar System Perihelion Gap -- link to recording [66] |
| | Mohamad Ali-Dib | University of Montreal | The rarity of very red TNOs in the scattered disk and high order resonances |
| 12:55-13:00 EDT | short break | | |
| 13:00-14:00 EDT | DDA Members' Meeting (open to attendees and all DDA members) | | |
| | Chair: Kat Volk | | |



14:00-14:15 EDT
14:15-14:35 EDT

break
Protoplanetary Disk Physics and Young Exoplanets (Session 504)

Chair: Konstantin Batygin

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| Sahl Rowther | University of Warwick | Hiding Signatures of Gravitational Instability in Protoplanetary Discs with Planets -- link to recording [67] |
| Zachary Murray | Center for Astrophysics Harvard and Smithsonian | The Effects of Massive Protoplanetary Disks on Resonance Capture and Evolution |
| Antranik Sefilian | University of Cambridge | Mind the gap: secular dynamics of self-gravitating debris disks -- link to recording [68] |
| Kundan Kadam | University of Western Ontario | Global model of magnetic wind-driven accretion in protoplanetary disks -- link to recording [69] |

14:35-14:50 EDT

Dynamics of Planets After the Main Sequence (Session 505)

Chair: Gongie Li

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| Christopher O'Connor | Cornell University | Secular chaos in white-dwarf planetary systems |
| Dimitri Veras | University of Warwick | The post-main-sequence fate of the HR 8799 planetary system -- link to recording [70] |
| Alexander Stephan | OSU | Throwing Giant Planets at White Dwarfs |

14:50-15:00 EDT
15:00-16:00 EDT

Closing Remarks/Announcements
end of meeting virtual socializing

Asynchronous Poster Presentations (Session 107)

Discussion via Slack

Available all week

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| Sethanne Howard | USNO/retired | Some spiral galaxies dominate their halos -- PDF Poster [71] |
| Nihaal Zaveri | University of California, Santa Cruz | Pluto's Resonant Orbit Visualized in 4D -- PDF Poster [72] |
| Konstantin Batygin | California Institute of Technology | P9-Driven Mixing Between the Inner Oort |

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| | | Cloud and the Scattered Disk -- PDF Poster [73] |
| Antranik Sefilian | University of Cambridge | Potential softening and eccentricity dynamics in nearly Keplerian disks -- PDF Poster [74] |
| Dimitri Veras | University of Warwick | Rocky debris pollution of single white dwarfs in systems with no planets |
| Rebekah Dawson | Pennsylvania State University | Obliquities of exoplanet host stars |
| Jiayin Dong | Penn State | In Situ versus Disk Migration Origins of Warm Jupiters: Prediction on Nearby Companions |
| Zhaozhou Li | Shanghai Jiao Tong University | The outer edges of the Milky Way halo from the motion of nearby galaxies |
| Jeffrey Sudol | West Chester University | On the prospect of detecting habitable trojan planets in the Kepler circumbinary planetary systems |
| Benjamin Proudfoot | Brigham Young University | Prolate vs Oblate: When Do Sectoral Gravitational Harmonics Matter? |
| Nader Haghighipour | Planetary Science Institute | No Resonance Capture is Exact |

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Links

- [1] <https://aas.org/meetings/dda52>
- [2] https://ui.adsabs.harvard.edu/search/p_0&q=bibstem%3Adda%20year%3A2021&sort=date%20desc%2C%20bibcode%20desc
- [3] <https://docs.google.com/document/d/1weoNJyhX15Cnr5EYEUyd7e1ZahaalfvBxC0kT1rKRsk/edit?usp=sharing>
- [4] <https://my.aas.org/services/DDA52>
- [5] <https://vimeo.com/546194546>
- [6] <https://vimeo.com/545348821>
- [7] <https://vimeo.com/545348825>
- [8] <https://vimeo.com/545348873>
- [9] <https://vimeo.com/545348943>
- [10] <https://vimeo.com/545348952>
- [11] <https://vimeo.com/545349004>
- [12] <https://vimeo.com/545349048>
- [13] <https://vimeo.com/545349061>
- [14] <https://dda.aas.org/sites/dda.aas.org/files/2021meeting/103.05%20Steven%20Kreyche%20-%20Exploring%20tidal%20obliquity%20variations%20with%20SMERCURY-T.pdf>
- [15] <https://vimeo.com/546230909>

- [16] <https://vimeo.com/545349210>
- [17] <https://vimeo.com/545349679>
- [18] <https://vimeo.com/545349321>
- [19] <https://vimeo.com/546196316>
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