Duncombe Prize - Past Winners

This page lists all past winners of the Duncombe Student Research Prize [1].

Year	Winner	Institution	Advisor	Presentation
2026	Yurou Liu	Yale University	Malena Rice and Tiger Lu	Hot-Jupiter-Hosting Binary Systems are Preferentially Eccentric
	Mark Dodici	University of Toronto	Yanqin Wu and Scott Tremaine	Constraining tidal dissipation rates with tightly bound stellar triples
	Grant Weldon	UCLA	Smadar Naoz	Saving Doomed Planets: Mass Loss and Angular Momentum Return Boost Hot Jupiter Survival Rates
	Sabina Sgynbayeva	Stony Brook University	Phil Armitage and Will Farr	Transit Photometry as a Surface Scanner: Mapping Starspots and Obliquities
2025	Cheyanne Shariat	Caltech	Kareem El-Badry / Smadar Naoz	The Role of Triples on Accreting Binary Populations: A Combined Observational and Dynamical Approach
	Zeyuan Xuan	University of California, Los Angeles	Smadar Naoz	Probing Dynamically Formed Black Hole Binaries in Galactic Globular Clusters with LISA
	Tiger Lu	Yale University	Malena Rice	Planets are not Points: The Profound Effect of Planetary Structure on Exoplanet System Architectures
	Jose Daniel Castro Cisneros	University of Arizona	Renu Malhotra	Lunar fragments impacting Earth
	Rachel Cueva	University of Colorado	Jay McMahon	Semisecular Nodal Resonances within Binary Near-Earth Asteroid Dynamical Evolution
2024	Jane Bright	University of Arizona	Ann-Marie Madigan	The M31 Nucleus: Our Closest Recoiled Black Hole?
	Alex Meyer	University of Colorado	Daniel Scheeres	The Rotational State of Dimorphos After the DART Impact
	Caleb Lammers	Princeton University	Norman Murray	The instability mechanism of compact multiplanet systems
	Christopher O'Connor	Cornell University	Dong Lai	The thermal evolution of WD1856b reveals its migration history
	2023	Sergio Best	Pontificia Universidad Catolica de Chile	Cristobal Petrovich
Barry	Ginat	Technion Israel Institute of Technology	Hagai Perets	Resonant Dynamical Friction at The Galactic Center
Sanaea	Rose	University of California, Los Angeles	Smadar Naoz	Stellar Collisions in the Galactic Center
Ric		University of	Enrico Ramirez	The hydrodynamics of planetary

ardo Yarza		California, Santa Cruz	Ruiz	engulfment
2022	Scott Lucchini	U Wisconsin, Madison	Elena D'Onghia	The Magellanic Stream at 20 kpc: A New Orbital History for the Magellanic Clouds
	Maddie Lucey	University of Texas at Austin	Keith Hawkins	Constraining the length and pattern speed of the Milky Way bar from direct orbit integration
	Mor Rozner	Technion Israel Institute of Technology	Hagai Perets	Binary evolution, gravitational-wave mergers and explosive transients in multiple-populations gas-enriched globular-clusters
	Roberto Tejada Arevalo	Princeton University	Dan Tamayo	Stability Constrained Characterization of the 23 Myr-old V1298 Tau System: Do Young Planets Form in Mean Motion Resonance Chains?
2021	Jiayin Dong	Penn State	Rebekah Dawson	Boundary Layer Circumplanetary Accretion: How Fast Could an Unmagnetized Planet Spin Up Through Its Disk?
	Arcelia Hermosillo Ruiz	University of California, Santa Cruz	Ruth Murray-Clay	The Impact of Stochastic Migration on Weak Resonances in The Kuiper Belt
	Tatsuya Akiba	University of Colorado Boulder	Ann-Marie Madigan	The Beginning of an END
	Max Goldberg	California Institute of Technology	Konstantin Batygin	A Tidal Origin for a 3-body Resonance in Kepler-221
2020	Emma Lieb	University of Colorado Boulder	Angela Collier	Leading Spiral Arms in Isolated Disc Galaxies -- Duncombe Student Research Prize Winner
	Jorge Pérez-Hernández	Universidad Nacional Autonoma de Mexico	Luis Benet	The Yarkovsky effect for (99942) Apophis and observational predictions for the upcoming 2020-2021 close approach to Earth
	Malena Rice	Yale University	Gregory Laughlin	Surveying the Trans-Neptunian Solar System with TESS
	Yubo Su	Cornell University	Dong Lai	Dynamics of Colombo's Top: Generating Exoplanet Obliquities from Planet-Disk Interactions
2019	Yuxi Lu	University of Maryland	Doug Hamilton	Simulating Saturn's A ring edge with a single chain of gravitationally-interacting particles
	Ekta Patel	University of Arizona	Gurtina Besla	Dynamics of Local Group satellite galaxies in the era of high precision astrometry
	Bonan Pu	Cornell University	Dong Lai	Low-eccentricity formation of ultra-short period planets in multi-planet systems
	Darryl Seligman	Yale University	Greg Laughlin	On the anomalous acceleration of 1I/2017 U1 `Oumuamua
201	Kassandra	Cornell University	Dong Lai	Teetering stars: resonant

8	Anderson			excitation of stellar obliquities by hot and warm Jupiters with external companions
	Elizabeth Bailey	California Institute of Technology	Konstantin Batygin	Probing the parameters of the HAT-P-2 system
	Tali Khain	University of Michigan	Fred Adams	The generation of the distant Kuiper belt by planet nine from an initially broad perihelion distribution
	Sarah Millholland	Yale University	Greg Laughlin	On the obliquities of planets in close-in, compact systems
2017	Alex Davis	University of Colorado, Boulder	Daniel Scheeres	Constraining Binary Asteroid Mass Distributions Based on Mutual Dynamics
	Michelle Vick	Cornell University	Dong Lai	Dynamical Tides in Highly Eccentric Binaries: Chaos, Dissipation and Quasi-Steady State
	Robert Chancia	University of Idaho	Matthew Hedman	Weighing Uranus' Moon Cressida with the η Ring
2016	Maria Tiongco	Indiana University	Enrico Vesperini	Effects of Dynamical Evolution on the Internal Kinematical Properties of Star Clusters
	Eva Bodman	University of Rochester	Alice Quillen	Cometary Source for the Strange Behavior of KIC 8462852
	Indranil Banik	University of St Andrews	Hong Sheng Zhao	Anomalous Motions in the Local Group: Evidence of a Past Milky Way Andromeda Flyby
2015	Juliette Becker	University of Michigan	Fred Adams	Inclination Excitation in Compact Extrasolar Planetary Systems
	Peter Buhler	California Institute of Technology	Konstantin Batygin	Dialing the Love Number of Hot Jupiter HAT-P-13b
	Gongjie Li	Harvard University	Avi Loeb	On the Spin-axis Dynamics of the Earth
	Chris Spalding	California Institute of Technology	Konstantin Batygin	Secular star-disk coupling and the origin of exoplanetary spin-orbit misalignments
2014	Nicholas Attree	Queen Mary, University of London	Carl Murray	Collisional Features in Saturn's F Ring
	Melissa Dykhuis	University of Arizona	Richard Greenberg	Defining the Flora Family: Reflectance Properties and Age
	Natalia Storch	Cornell University	Dong Lai	Chaotic Dynamics of Stellar Spin in Binaries and the Production of Misaligned Hot Jupiters
2013	South American Award Winners			
	Cristian Giuppone	IATE-OAC, Cordoba, Aregentina	Alexandre Correia	Stability criteria in real planetary systems
	Andre Izidoro	UNESP, Guaratingueta, Brazil	Othon Winter	Non-uniform distributions of protoplanetary bodies as a pre-requisite for the formation of a low-mass Mars
	Rest of the World Award Winners			
	Audrey Compère	University of Namur	Anne Lemaitre	Dynamical explanation for the lack of binary asteroids among the Plutinos
	Katherine Deck	Massachusetts Institute of	Matthew J. Holman	Rapid Dynamical Chaos in an Exoplanetary System

	Aaron Rosengren	Technology University of Colorado, Boulder	Daniel Scheeres	The Milankovitch orbital elements and their application to the long-term orbit evolution of planetary satellites subject to radiation and gravitational perturbations
2012	Nathaniel Hamlin	University of California, Los Angeles	William Newman	The Role of Magnetic Fields in Relativistic Astrophysical Jets
	Erika Nesvold	University of Maryland, Baltimore County	March Kuchner NASA Goddard	A New Method for Modeling Collisions in Debris Disks
	Christa Van Laerhoven	University of Arizona	Rick Greenberg	Secular Dynamics of the Kepler-11 System
2011	Rebekah Dawson	Harvard University	Ruth Murray-Clay	Secular Constraints on the Dynamical History of the Solar System
	Daniel Jontof-Hutter	University of Maryland	Douglas Hamilton	Stability of Charged Grains in Planetary Rings
	Sarah Miller	Oxford University and California Institute of Technology	Richard Ellis	The Assembly History of Disk Galaxies: The Tully-Fisher Relation and Dynamical Mass Estimates to z=1.3
2010	Adrian Barker	University of Cambridge	Gordon Ogilvie	Internal wave breaking and the fate of planets around solar-type stars
	Justin Comparetta	University of Rochester	Alice Quillen	Instabilities in tidal tails
	Tyler Mitchell	University of Colorado, Boulder	Glen Stewart	A New Method for Modeling Collisions in Debris Disks
	Daniel Tamayo	Cornell University	Joe Burns	The exogenous origin of Iapetus' dark material
2009	Julia Comerford	University of California, Berkeley	Marc Davis	The Dynamics of Black Holes in Galaxy Mergers: A New Observational Technique for Identifying Mergers
	Ashley Espy	Univeristy of Florida	Stanley Dermott	A Dynamical Model of a Still-Forming Zodiacal Dust Band as Constrained by IRAS
2008	Clement Baruteau	CEA Saclay, France	Frederic Masset	Planetary migration in a self-gravitating gaseous disk
	Althea Moorhead	University of Michigan	Fred Adams	Evolution of giant planet orbits in a turbulent circumstellar disk
2007	Chris Stark	University of Maryland	Marc Kuchner	Debris Disk Structures Induced by Terrestrial-Mass Planets
	Genya Takeda	Northwestern University	Fred Rasio	Secular Evolution of Planets in Binary Systems
2006	Ivan Minchev	University of Rochester	Alice Quillen	Radial Heating of a Galactic Disk by Multiple Spiral Density Waves
	Kevin Walsh	University of Maryland	Derek Richardson	A Steady-State Model of NEA Binaries Formed via Tidal Disruption
2005	Ruth Murray-Clay	University of California, Berkeley	Eugene Chiang	A Signature of Planetary Migration: The Origin of Asymmetric Capture in the 2:1 Resonance
	Ke Zhang	University of Maryland	Douglas Hamilton	Dynamics of Neptune's Small Satellites

2004	Sean Raymond	University of Washington	Tom Quinn	Making other Earths: Dynamical Simulations of Terrestrial Planet Formation and Water Delivery
	Dimitri Veras	University of Colorado, Boulder	Phil Armitage	The Dynamics of Two Planets on Inclined Orbits
2003	Rory Barnes	University of Washington	Tom Quinn	Planet scattering and exoplanet orbits
	Edwin Sirko	Princeton University	Jeremy Goodman	Galactic Halo
2002	Matija Cuk	Cornell University	Joe Burns	New Secular Resonances Involving the Irregular Satellites of Saturn
	Milos Milosavljevic	Rutgers University	David Merritt	Dynamics of Galactic Nuclei
2001	Eric Barnes	Louisiana State University	Joel Tohline	Characterizing 3D Stellar Orbits with Correlation Integrals
	Britt Scharringhausen	Cornell University	Phil Nicholson	Adaptive Optics Observations of Saturn's Inner Moons
2000	Joseph Adams	University of Massachusetts		Results on the Structure and Mass of the Pleiades from a 2MASS-USNO Proper Motion Search
	Robert Salow	Ohio University		Self-Consistent Models of Eccentric Nuclear Disks
1999	Jacob Bak	Ohio University		Properties of Cores Formed by Retrograde Minor Mergers
	Steven Deines	Iowa State University		Apparent Deceleration of the Lunar Mean Motion and the Uncompensated Time Dilation in Timescales
1998	Elena Grocheva	Pulkovo Observatory		Applications of Probability Theory to the Identification and Analysis of Binary Star Systems
	Jounghun Lee	University of Kansas		The Cosmological Mass Distribution Function in the Zel'dovich Approximation
1997	Dana Dinescu	Yale University		Tangential Velocities of Southern Globular Clusters: New Results
	Francis Wilkins	University of California, Berkeley		Analytic Solutions for Non-Axisytnmetric Stellar Wind Bow Shocks and Binary Wind Collisions
1996	Jose Luis Alvarellos	San Jose State University		Orbital Stability of Hypothetical Distant Satellites of the Jovian Planets
	Kevin Grazier	University of California, Los Angeles		Integrators for Long-Term Solar System Dynamical Simulations
1995	Julia Espresate-Eibenschutz	State University of New York, Stony Brook		Transient Torque on a Dissipation-less Annulus at the 2:1 Orbital Resonance
	Jane Morrison	University of Florida		Re-reduction of the Southern Polar Zone of the Yale Photographic Catalog

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[1] https://dda.aas.org/awards/duncombe