

Duncombe Prize - Past Winners

Year	Winner	Institution	Advisor	Presentation
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
2019	Yubo Su	Cornell University	Dong Lai	Dynamics of Colombo's Top: Generating Exoplanet Obliquities from Planet-Disk Interactions
	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
2018	Darryl Seligman	Yale University	Greg Laughlin	On the anomalous acceleration of 1I/2017 U1 'Oumuamua
	Kassandra Anderson	Cornell University	Dong Lai	Teetering stars: resonant 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
2017	Sarah Millholland	Yale University	Greg Laughlin	On the obliquities of planets in close-in, compact systems
	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
2016	Robert Chancia	University of Idaho	Matthew Hedman	Weighing Uranus' Moon Cressida with the η Ring
	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

2015	Juliette Becker	University of Michigan	Fred Adams	Way Andromeda Flyby
	Peter Buhler	California Institute of Technology	Konstantin Batygin	Inclination Excitation in Compact Extrasolar Planetary Systems
	Gongjie Li	Harvard University	Avi Loeb	Dialing the Love Number of Hot Jupiter HAT-P-13b
	Chris Spalding	California Institute of Technology	Konstantin Batygin	On the Spin-axis Dynamics of the Earth
2014	Nicholas Attree	Queen Mary, University of London	Carl Murray	Secular star-disk coupling and the origin of exoplanetary spin-orbit misalignments
	Melissa Dykhuis	University of Arizona	Richard Greenberg	Collisional Features in Saturn's F Ring
	Natalia Storch	Cornell University	Dong Lai	Defining the Flora Family: Reflectance Properties and Age
2013	South American Award Winners			Chaotic Dynamics of Stellar Spin in Binaries and the Production of Misaligned Hot Jupiters
	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
2012	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 Technology	Matthew J. Holman	Rapid Dynamical Chaos in an Exoplanetary System
2011	Aaron Rosengren	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
	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	A New Method for Modeling Collisions in Debris Disks
2010	Christa Van Laerhoven	University of Arizona	Rick Greenberg	Secular Dynamics of the Kepler-11 System
	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
2009	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 $z=1.3$
	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	University 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



199 8	Elena Grocheva Jounghun Lee	Pulkovo Observatory University of Kansas	Uncompensated Time Dilation in Timescales Applications of Probability Theory to the Identification and Analysis of Binary Star Systems The Cosmological Mass Distribution Function in the Zel'dovich Approximation
199 7	Dana Dinescu Francis Wilkins	Yale University University of California, Berkeley	Tangential Velocities of Southern Globular Clusters: New Results Analytic Solutions for Non-Axisymmetric Stellar Wind Bow Shocks and Binary Wind Collisions
199 6	Jose Luis Alvarelos Kevin Grazier	San Jose State University University of California, Los Angeles	Orbital Stability of Hypothetical Distant Satellites of the Jovian Planets Integrators for Long-Term Solar System Dynamical Simulations
199 5	Julia Espresate-Eib enschutz Jane Morrison	State University of New York, Stony Brook University of Florida	Transient Torque on a Dissipation-less Annulus at the 2:1 Orbital Resonance Re-reduction of the Southern Polar Zone of the Yale Photographic Catalog

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