EUGENE CHIANG

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Education

2000	CALIFORNIA INSTITUTE OF TECHNOLOGY Ph.D. Astronomy Thesis: Circumstellar and Circumplanetary Disks	Pasadena, CA
1995	MASSACHUSETTS INSTITUTE OF TECHNOLOGY S.B. Physics, Minor in Theater Arts Thesis: Ionization Nebulae Surrounding Supersoft X-ray Sources	Cambridge, MA

Awards

2023	Simons Investigator
2019	Fellow, American Academy of Arts and Sciences
2019	Donald Sterling Noyce Prize for Undergraduate Teaching in Physical Sciences
2014	Berkeley Distinguished Teaching Award
2012	NOVA Lecturer for the Netherlands Research School in Astronomy
2010	American Association for Advancement of Science Newcomb Cleveland Prize
2004	Alfred P. Sloan Research Fellow
1999	Caltech Lewis A. Kingsley Foundation Fellow
1995	MIT Orloff Prize
1995	MIT Alan H. Barrett Prize

Appointments

2020-2023	CalTeach (STEM Education Minor and K-12 Accreditation)	Berkeley, CA
	Faculty Director	
2015 - 2018	UC Berkeley Astronomy	Berkeley, CA
	Department Chair	
2011 - 2015	Berkeley Center for Integrative Planetary Science (CIPS)	Berkeley, CA
	Director	
2010-present	UC Berkeley Astronomy / Earth and Planetary Science	Berkeley, CA
	Professor	
2005 - 2010	UC Berkeley Astronomy / Earth and Planetary Science	Berkeley, CA
	Associate Professor	
2001 – 2005	UC Berkeley Astronomy / Earth and Planetary Science	Berkeley, CA
	Assistant Professor	
2000 - 2001	Institute for Advanced Study (IAS)	Princeton, NJ
	Hubble Fellow + Long-Term $(5$ -Year) Member	
1995 - 2000	Caltech Theoretical Astrophysics	Pasadena, CA
	National Science Foundation Fellow + Graduate Research Assistant	

Research Advising

2001–present RESEARCH ADVISOR

Berkeley, CA

- POSTDOC COLLABORATORS AT BERKELEY: Yoram Lithwick [Theoretical Astrophysics Center (TAC) Fellow, Associate Professor at Northwestern], Eric Ford [Miller Fellow, Professor at Penn State], Josh Eisner [Miller Fellow, Professor at U. Arizona], Ruobing Dong [Hubble Fellow, Associate Professor at Victorial, Rebekah Dawson [Miller Fellow, Professor at Penn State, 2018 Sloan Research Fellow, 2017 AAS Annie Jump Cannon Award, 2021 DPS Urey Prize, 2021 AAS Warner Prize], Meredith Hughes [Miller Fellow, Associate Professor at Wesleyan], Xylar Asay-Davis [Potsdam Institute for Climate Research], Margaret **Pan** [TAC and Center for Integrative Planetary Science (CIPS) Fellow, Harvard SAO], Chris **Ormel** [Hubble Fellow, VIDI Fellow at the University of Amsterdam, Associate Professor at Tsinghua], Ji-Ming Shi [CIPS/TAC Fellow, Associate Research Scholar at Princeton], Paul Duffell [TAC Fellow, Assistant Professor at Purdue], Jeffrey Fung [NASA Sagan Fellow, IAS Member, Assistant Professor at Clemson], Megan Ansdell [CIPS Fellow, NASA Program Scientist], Ian Czekala [Sagan Fellow, Assistant Professor at St. Andrews], Sivan Ginzburg [51 Peg Fellow, Senior Lecturer at Hebrew U.], Marta Bryan [51 Peg Fellow, Hubble Fellow, Assistant Professor at U. Toronto], J.J. Zanazzi [51 Peg Fellow], Rixin Li [51 Peg Fellow], Mohammad Farhat [Miller Fellow]
- GRADUATE STUDENTS ADVISED AT BERKELEY: Nick Choksi [Astronomy], Eve Lee [Astronomy, Sherman Fairchild Fellow at Caltech, Assistant Professor at McGill, 2022 AAS Annie Jump Cannon Award], Ruth Murray-Clay [Astronomy, Associate Professor at UC Santa Cruz, 2015 AAS Warner Prize], Daniel Perez-Becker [Physics, Senior Data Scientist at Microsoft], Edwin Kite [Earth and Planetary Science, Associate Professor at Chicago], Linda Strubbe [Astronomy, Science Teaching and Learning Fellow at University of British Columbia], Holly Maness [Astronomy], Tushar Mittal [Earth and Planetary Science, Assistant Professor at Penn State]
- GRADUATE STUDENTS ADVISED AT THE NSF INTERNATIONAL SUMMER INSTITUTE FOR MODELING IN ASTROPHYSICS (ISIMA): Jacques Masson [Ecole Normale Supérieure, France], Pascal Tremblin [CEA, Paris-Saclay, France], Peng Jiang [USTC, China], Sun Zhao [Purple Mountain Observatory, China], Zhi Jia and Wei Hao [Beijing University, China]
- GRADUATE STUDENT ADVISED FROM KYOTO UNIVERSITY INTERNATIONAL EXCHANGE PRO-GRAM: **Takaya Tamura** [Kyoto University, Japan]
- UNDERGRADUATES ADVISED AT BERKELEY: Joshua Bromley [Astrophysics & Physics], Roger Yu [Physics & CS], Leon Mikulinsky [Applied Math & Astrophysics], Joshua Jones [CS & Math], Lister Chen [Astrophysics & Math], Robert Michael Jennings, Jr. [Physics & Astrophysics, honors thesis], Ben Vinson [Physics & Math], Jonathan Lin [Engineering Physics, Minor in Astrophysics], Skylar Kerzer [Physics & Astrophysics], Hyo Min Choi [Math], Amy Jordan [Astrophysics], Chris Culter [Physics, honors thesis], Jessica Lovering [Astrophysics]
- UNDERGRADUATE ADVISED AT CALTECH: Ryan Moo Kwang Joung [Physics, honors thesis]

ISIMA SUMMER SCHOOL LECTURER AND RESEARCH SUPERVISOR Beijing, China

- Delivered 6-hour lecture series on planet formation to students, postdocs, and faculty from China, France, Germany, Britain, Japan, and the US, as part of the International Summer Institute for Modeling in Astrophysics (ISIMA, funded by NSF, hosted by the Kavli Institute for Astronomy and Astrophysics at Beijing University)
- Supervised five independent research projects for six graduate students from France and China. Projects resulted in two refereed publications

2011

2008-2015	HEAD GRADUATE ADVISOR FOR DERKELEY ASTRONOMY DERKELEY,	UA
	• General-purpose advisor for ~ 40 graduate students. Enforced deadlines for preliminary qualifying exams. Mediated student-faculty relationships. Tracked progress of all students intervened when necessary	
	• Author of 58-page manual for curricula and advising for Departmental Self-Study in 2008	5
2020-present	HEAD UNDERGRADUATE ADVISOR FOR BERKELEY ASTRONOMY Berkeley,	CA
	• General-purpose advisor for ~ 100 majors, reviewing degree requirements, expanding access research, and promoting professional development	ss to
	- Drive in al Lauration tar of Daulalan Discours Investigat Court (2020-24, @2001) for Discours	0

HEAD CDADUATE ADVISOD FOD DEDUCIEV ASTRONOMY

• Principal Investigator of Berkeley Discover Innovation Grant (2020-24, \$580k) for Physics & Astronomy, developing Peer Tutor + Peer Advisor programs, modernizing undergraduate labs

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Selected Publications

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- 1. "Spectral Energy Distributions of T Tauri Stars with Passive Circumstellar Disks," Chiang, E. I., & Goldreich, P. Astrophys. J., 490, 368 (1997)
- "APSE ALIGNMENT OF NARROW ECCENTRIC PLANETARY RINGS," Chiang, E. I., & Goldreich, P. Astrophys. J., 540, 1084 (2000)
- "THE CIRCUMBINARY RING OF KH 15D," Chiang, E. I. & Murray-Clay, R. A. Astrophys. J., 607, 913 (2004)
- 4. "DUST DYNAMICS, SURFACE BRIGHTNESS PROFILES, AND THERMAL SPECTRA OF DEBRIS DISKS: THE CASE OF AU MICROSCOPII," Strubbe, L. E., & Chiang, E. I. Astrophys. J., 648, 652 (2006)
- 5. "ATMOSPHERIC ESCAPE FROM HOT JUPITERS," Murray-Clay, R. A., Chiang, E. I., & Murray, N. Astrophys. J., 693, 23 (2009)
- 6. "FORMING PLANETESIMALS IN SOLAR AND EXTRASOLAR NEBULAE," Chiang, E., & Youdin, A. Annual Reviews of Earth and Planetary Science, 38, 493 (2010)
- 7. "SURFACE LAYER ACCRETION IN CONVENTIONAL AND TRANSITIONAL DISKS DRIVEN BY FAR-ULTRAVIOLET IONIZATION," Perez-Becker, D., & Chiang, E. Astrophys. J., 735, 8 (2011)
- "CATASTROPHIC EVAPORATION OF ROCKY PLANETS," Perez-Becker, D., & Chiang, E. MNRAS, 433, 2294 (2013)
- 9. "The Minimum-Mass Extrasolar Nebula: In-Situ Formation of Close-in Super-Earths," Chiang, E., & Laughlin, G. *MNRAS*, 431, 3444 (2013)
- 10. "How EMPTY ARE DISK GAPS OPENED BY GIANT PLANETS," Fung, J., Shi, J.-M., & Chiang, E. ApJ, 782, 88 (2014)
- 11. "Breeding Super-Earths and Birthing Super-Puffs in Transitional Disks," Lee, E.J., & Chiang, E. ApJ, 817, 90 (2016)
- 12. "MAGNETOSPHERIC TRUNCATION, TIDAL INSPIRAL, AND THE CREATION OF SHORT-PERIOD AND ULTRA-SHORT-PERIOD PLANETS," Lee, Eve J. & Chiang, Eugene ApJ, 842, 40 (2017)
- 13. "Stellar Winds and Dust Avalanches in the AU Mic Debris Disk," Chiang, E. & Fung, J. ApJ, 848, 4 (2017)
- 14. "GIANT IMPACTS AND DEBRIS DISK MORPHOLOGY," Jones, Joshua, W., Chiang, E., et al. Astrophysical Journal, 948, 102 (2023)
- 15. "CHAOTIC WINDS FROM A DYING WORLD: A ONE-DIMENSIONAL MAP FOR EVOLVING ATMOSPHERES," Bromley, Joshua & Chiang, Eugene *MNRAS*, 521, 5746 (2023)

Refereed Publications (138 / Google Scholar h-index: 64 / i10-index: 124)

- "ON THE LI AND BE TESTS FOR BROWN DWARFS," Nelson, L. A., Rappaport, S., & Chiang, E. Astrophys. J., 413, 364 (1993)
- "TIME-DOMAIN HOLOGRAPHIC IMAGE STORAGE," Shen, X. A., Chiang, E., & Kachru, R. Optics Letters, 19, 1246 (1994)
- "IONIZATION NEBULAE SURROUNDING SUPERSOFT X-RAY SOURCES," Rappaport, S., Chiang, E., Kallman, T., & Malina, R. Astrophys. J., 431, 237 (1994)
- "A λ3.6 CM RADIO SURVEY OF LOW-MASS WEAK T TAURI STARS IN TAURUS-AURIGA," Chiang, E., Phillips, R., & Lonsdale, C. Astron. J., 111, 355 (1996)
- "TIME-DEPENDENT CALCULATIONS OF IONIZATION NEBULAE SURROUNDING SUPERSOFT X-RAY SOURCES," Chiang, E., & Rappaport, S. Astrophys. J., 469, 255 (1996)
- "SPECTRAL ENERGY DISTRIBUTIONS OF T TAURI STARS WITH PASSIVE CIRCUMSTELLAR DISKS," Chiang, E. I., & Goldreich, P. Astrophys. J., 490, 368 (1997)
- 7. "KECK PENCIL-BEAM SURVEY FOR FAINT KUIPER BELT OBJECTS," Chiang, E.I., & Brown, M. E. Astron. J., 118, 1411 (1999)
- "SPECTRAL ENERGY DISTRIBUTIONS OF PASSIVE T TAURI DISKS: INCLINATION," Chiang, E.I., & Goldreich, P. Astrophys. J., 519, 279 (1999)
- "ANGULAR MOMENTUM TRANSPORT IN PARTICLE AND FLUID DISKS," Quataert, E., & Chiang, E. I. Astrophys. J., 543, 432 (2000)
- "APSE ALIGNMENT OF NARROW ECCENTRIC PLANETARY RINGS," Chiang, E. I., & Goldreich, P. Astrophys. J., 540, 1084 (2000)
- "SPECTRAL ENERGY DISTRIBUTIONS OF PASSIVE T TAURI AND HERBIG AE DISKS: GRAIN MINERALOGY, PARAMETER DEPENDENCES, AND COMPARISON WITH OBSERVATIONS," Chiang, E. I., Joung, M. K., Creech-Eakman, M., Qi, C., Kessler, J., Blake, G., & van Dishoeck, E. F. Astrophys. J., 577, 1077 (2001)
- "APSIDAL ALIGNMENT IN UPSILON ANDROMEDAE," Chiang, E. I., Tabachnik, S., & Tremaine, S. Astron. J., 122, 1607 (2001)
- "INFRARED VIEWS OF THE TW HYA DISK," Weinberger, A. J., Becklin, E. E., Schneider, G., Chiang, E. I., Lowrance, P. J., Silverstone, M., Zuckerman, B., Hines, D., & Smith, B. A. Astrophys. J., 566, 409 (2002)
- "ISO LWS SPECTRA OF T TAURI AND HERBIG AEBE STARS," Creech-Eakman, M.J., Chiang, E.I., Joung, R.M.K., Blake, G.A., & van Dishoeck, E.F. Astron. & Astrophys., 385, 546 (2002)
- "EXCITATION OF ORBITAL ECCENTRICITIES OF EXTRASOLAR PLANETS BY REPEATED RES-ONANCE CROSSINGS," Chiang, E. I., Fischer, D., & Thommes, E. Astrophys. J. Letters, 564, L105 (2002)
- 16. "ECCENTRICITY EXCITATION AND APSIDAL RESONANCE CAPTURE IN THE PLANETARY SYS-TEM UPSILON ANDROMEDAE," Chiang, E. I., & Murray, N. Astrophys. J., 576, 473 (2002)
- 17. "A COLLISIONAL FAMILY IN THE CLASSICAL KUIPER BELT," Chiang, E. I. Astrophys. J. Letters, 573, L65 (2002)
- 18. "ON THE PLUTINOS AND TWOTINOS OF THE KUIPER BELT," Chiang, E. I., & Jordan, A. B. Astron. J., 124, 3430 (2002)
- 19. "Excitation of Orbital Eccentricities by Repeated Resonance Crossings: Re-QUIREMENTS," Chiang, E. I. Astrophys. J., 584, 465 (2003)
- 20. "RESONANCE OCCUPATION IN THE KUIPER BELT: CASE EXAMPLES OF THE 5:2 AND TROJAN RESONANCES," Chiang, E. I., Jordan, A. B., Millis, R. L., Buie, M. W., Wasserman, L. H., Elliot, J. L., Kern, S. D., Trilling, D. E., Meech, K. M., & Wagner, R. M. Astron. J., 126, 430 (2003)

- 21. "RESONANT AND SECULAR FAMILIES OF THE KUIPER BELT," Chiang, E. I., Lovering, J.L., Millis, R. L., Buie, M. W., Wasserman, L. H., & Meech, K. J. Earth, Moon, & Planets, First Decadal Review of the Edgeworth-Kuiper Belt special issue, 92, 49 (2003)
- "PROCEDURES, RESOURCES AND SELECTED RESULTS OF THE DEEP ECLIPTIC SURVEY," Buie, M.W., Millis, R.L., Wasserman, L.H., Elliot, J.L., Kern, S.D., Clancy, K.B., Chiang, E.I., Jordan, A.B., Meech, K.J., Wagner, R.M., & Trilling, D.E. *Earth, Moon, & Planets*, 92, 113 (2003)
- "THE DYNAMIC NEPTUNIAN RING ARCS," de Pater, I., Gibbard, S., Chiang, E. I., Hammel, H., Macintosh, B., Marchis, F., Martin, S., Roe, H. G., & Showalter, M. *Icarus*, 174, 263 (2005)
- 24. "THREE-DIMENSIONAL DYNAMICS OF NARROW PLANETARY RINGS," Chiang, E. I. & Culter, C. J. Astrophys. J., 599, 675 (2004)
- 25. "PARTICLE PILE-UPS AND PLANETESIMAL FORMATION," Youdin, A. N. & Chiang, E. I. Astrophys. J., 601, 1109 (2004)
- "THE CIRCUMBINARY RING OF KH 15D," Chiang, E. I. & Murray-Clay, R. A. Astrophys. J., 607, 913 (2004)
- 27. "A SIGNATURE OF PLANETARY MIGRATION: THE ORIGIN OF ASYMMETRIC CAPTURE IN THE 2:1 RESONANCE," MURRAY-Clay, R. A. & Chiang, E. I. Astrophys. J., 619, 623 (2005)
- 28. "THE DEEP ECLIPTIC SURVEY: A SEARCH FOR KUIPER BELT OBJECTS AND CENTAURS. II. DYNAMICAL CLASSIFICATION, THE KUIPER-BELT PLANE, AND THE CORE POPULATION," Elliot, J.L., Kern, S.D., Clancy, K.B., Gulbis, A.A.S., Millis, R.L., Buie, M.W., Wasserman, L.H., Chiang, E. I., Jordan, A.B., Trilling, D.E., & Meech, K.J. Astron. J., 129, 1117 (2005)
- "NEPTUNE TROJANS AS A TESTBED FOR PLANET FORMATION," Chiang, E. I., & Lithwick, Y. Astrophys. J., 628, 520 (2005)
- "ON THE LOCATION OF THE SNOW-LINE IN PROTOPLANETARY DISKS," Lecar, M., Podolak, M., Sasselov, D., & Chiang, E. Astrophys. J., 640, 1115 (2006)
- 31. "SPATIALLY RESOLVING THE INNER DISK OF TW HYDRAE," Eisner, J. A., Chiang, E. I., & Hillenbrand, L. A. Astrophys. J. Letters, 637, 133 (2006)
- 32. "DUST DYNAMICS, SURFACE BRIGHTNESS PROFILES, AND THERMAL SPECTRA OF DEBRIS DISKS: THE CASE OF AU MICROSCOPII," Strubbe, L. E., & Chiang, E. I. Astrophys. J., 648, 652 (2006)
- "BROWNIAN MOTION IN PLANETARY MIGRATION," Murray-Clay, R. A., & Chiang, E. I. Astrophys. J., 651, 1194 (2006)
- 34. "A BRIEF HISTORY OF TRANS-NEPTUNIAN SPACE," Chiang, E. I., Lithwick, Y., Murray-Clay, R., Buie, M., Grundy, W., & Holman, M. Refereed review chapter in *Protostars and Planets V*, eds. B. Reipurth, D. Jewitt, & K. Keil, University of Arizona Press, 895 (2007)
- 35. "COLLISIONAL PARTICLE DISKS," Lithwick, Y., & Chiang, E. Astrophys. J., 656, 524 (2007)
- 36. "SPECTRALLY DISPERSED K-BAND INTERFEROMETRIC OBSERVATIONS OF HERBIG AE/BE SOURCES: INNER DISK TEMPERATURE PROFILES," Eisner, J. A., Chiang, E. I., Lane, B. F., & Akeson, R. L. Astrophys. J., 657, 347 (2007)
- 37. "BINARIES IN THE KUIPER BELT," Noll, K. S., Grundy, W. M., Chiang, E. I., Margot, J.-L., & Kern, S. D. Refereed review chapter in *The Kuiper Belt*, University of Arizona Press (2007)
- "THE FORMATION OF ICE GIANTS IN A PACKED OLIGARCHY: INSTABILITY AND AFTER-MATH," Ford, E. B., & Chiang, E. I.. Astrophys. J., 661, 602 (2007)
- 39. "THE ORIGIN OF THE YOUNG STARS IN THE NUCLEUS OF M31," Chang, P., Murray-Clay, R., Chiang, E., & Quataert, E. Astrophys. J., 668, 236 (2007)
- "INSIDE-OUT EVACUATION OF TRANSITIONAL PROTOPLANETARY DISKS BY THE MAGNETO-ROTATIONAL INSTABILITY," Chiang, E. I., & Murray-Clay, R. A. Nature Physics, 3, 604 (2007)

- 41. "Vertical Shearing Instabilities in Radially Shearing Disks: The Dustiest Layers of the Protoplanetary Nebula," Chiang, E. I. Astrophys. J., 675, 1549 (2008)
- 42. "THE WARPED PLANE OF THE CLASSICAL KUIPER BELT," Chiang, E. I., & Choi, H. Astron. J., 136, 350 (2008)
- 43. "OPTICAL IMAGES OF AN EXOSOLAR PLANET 25 LIGHT-YEARS FROM EARTH," Kalas, P., Graham, J. R., Chiang, E. I., Fitzgerald, M. P., Clampin, M., Kite, E. S., Stapelfeldt, K., Marois, C., & Krist, J. Science, 302, 1345 (2008)
- 44. "ATMOSPHERIC ESCAPE FROM HOT JUPITERS," Murray-Clay, R. A., Chiang, E. I., & Murray, N. Astrophys. J., 693, 23 (2009)
- 45. "HIGH ALBEDOS OF LOW INCLINATION CLASSICAL KUIPER BELT OBJECTS," Brucker, M. J., Grundy, W. M., Stansberry, J. A., Spencer, J. R., Sheppard, S. S., Chiang, E. I., & Buie, M. W. *Icarus*, 201, 284 (2009)
- 46. "FOMALHAUT'S DEBRIS DISK AND PLANET: CONSTRAINING THE MASS OF FOMALHAUT B FROM DISK MORPHOLOGY," Chiang, E., Kite, E., Kalas, P., Graham, J. R., & Clampin, M. Astrophys. J., 693, 734 (2009)
- 47. "HUBBLE SPACE TELESCOPE IMAGING OF THE ERODING DEBRIS DISK HD 61005," Maness, H., Kalas, P., Peek, K. M. G., Chiang, E. I., et al. Astrophys. J., 707, 1098 (2009)
- 48. "FORMING PLANETESIMALS IN SOLAR AND EXTRASOLAR NEBULAE," Chiang, E., & Youdin, A. Annual Reviews of Earth and Planetary Science, 38, 493 (2010)
- "FORMING PLANETESIMALS BY GRAVITATIONAL INSTABILITY. I. THE ROLE OF THE RICHARD-SON NUMBER IN TRIGGERING THE KELVIN-HELMHOLTZ INSTABILITY," Lee, A. T., Chiang, E., Asay-Davis, X., & Barranco, J. Astrophys. J., 718, 1367 (2010)
- "FORMING PLANETESIMALS BY GRAVITATIONAL INSTABILITY. II. HOW DUST SETTLES TO ITS MARGINALLY STABLE STATE," Lee, A. T., Chiang, E., Asay-Davis, X., & Barranco, J. Astrophys. J., 725, 1938 (2010)
- 51. "THE PROPELLER AND THE FROG," Pan, M., & Chiang, E. Astrophys. J. Letters, 722, L178 (2010)
- 52. "SURFACE LAYER ACCRETION IN TRANSITIONAL AND CONVENTIONAL DISKS: FROM POLY-CYCLIC AROMATIC HYDROCARBONS TO PLANETS," Perez-Becker, D., & Chiang, E. Astrophys. J., 727, 2 (2011)
- 53. "SURFACE LAYER ACCRETION IN CONVENTIONAL AND TRANSITIONAL DISKS DRIVEN BY FAR-ULTRAVIOLET IONIZATION," Perez-Becker, D., & Chiang, E. Astrophys. J., 735, 8 (2011)
- 54. "CARE AND FEEDING OF FROGS," Pan, M., & Chiang, E. Astron. J., 143, 9 (2012)
- 55. "Confirming the Primarily Smooth Structure of the Vega Debris Disk at Mil-LIMETER WAVELENGTHS," Hughes, M., et al. Astrophys. J., 750, 82 (2012)
- 56. "Possible Disintegrating Short-Period Super-Mercury Orbiting KIC 12557548," Rappaport, S., Levine, A., Chiang, E., et al. Astrophys. J., 752, 1 (2012)
- 57. "STOCHASTIC FLIGHTS OF PROPELLERS," Pan, M., Rein, H., Chiang, E., & Evans, S.N. MNRAS, 427, 2788 (2012)
- 58. "Colliding Planetary and Stellar Winds: Charge Exchange and Transit Spectroscopy in Neutral Hydrogen," Tremblin, P., & Chiang, E. *MNRAS*, 428, 2565 (2013)
- 59. "MILLIMETER EMISSION STRUCTURE IN THE FIRST ALMA IMAGE OF THE AU MIC DEBRIS DISK," MacGregor, M.A., et al. Astrophys. J. Letters, 762, L21 (2013)
- 60. "FROM DUST TO PLANETESIMALS: CRITERIA FOR GRAVITATIONAL INSTABILITY OF SMALL PARTICLES IN GAS," Shi, J.-M., & Chiang, E. Astrophys. J., 764, 20 (2013)
- 61. "THE MINIMUM-MASS EXTRASOLAR NEBULA: IN-SITU FORMATION OF CLOSE-IN SUPER-EARTHS," Chiang, E., & Laughlin, G. *MNRAS*, 431, 3444 (2013)
- "CATASTROPHIC EVAPORATION OF ROCKY PLANETS," Perez-Becker, D., & Chiang, E. MNRAS, 433, 2294 (2013)

- 63. "How Empty Are Disk Gaps Opened by Giant Planets," Fung, J., Shi, J.-M., & Chiang, E. ApJ, 782, 88 (2014)
- 64. "FAST RADIAL FLOWS IN TRANSITION DISK HOLES," Rosenfeld, K.A., Chiang, E., & Andrews, S.M. ApJ, 782, 62 (2014)
- 65. "Multiwavelength Observations of the Putative Disintegrating Sub-Mercury KIC 12557548b," Croll, B., et al. *ApJ*, 786, 100 (2014)
- 66. "GRAVITO-TURBULENT DISKS IN 3D: TURBULENT VELOCITIES VS. DEPTH," Shi, J.-M. & Chiang, E. ApJ, 789, 34 (2014)
- 67. "A CLASS OF WARM JUPITERS WITH MUTUALLY INCLINED, APSIDALLY ALIGNED CLOSE FRIENDS," Dawson, Rebekah I. & Chiang, Eugene Science, 346, 212 (2014)
- 68. "MAKE SUPER-EARTHS, NOT JUPITERS: ACCRETING NEBULAR GAS ONTO SOLID CORES AT 0.1 AU AND BEYOND," Lee, Eve J., Chiang, E., & Ormel, Chris W. ApJ, 797, 95 (2014)
- 69. "FAST MODES AND DUSTY HORSESHOES IN TRANSITIONAL DISKS," Mittal, T. & Chiang, E. ApJL, 798, L25 (2015)
- 70. "A METALLICITY RECIPE FOR ROCKY PLANETS," Dawson, R.I., Chiang, E., & Lee, E.J. MNRAS, 453, 1471 (2015)
- 71. "To Cool Is To Accrete: Analytic Scalings for Nebular Accretion of Planetary Atmospheres," Lee, Eve J., & Chiang, Eugene ApJ, 811, 41 (2015)
- 72. "DISCOVERY AND SPECTROSCOPY OF THE YOUNG JOVIAN PLANET 51 ERI B WITH THE GEMINI PLANET IMAGER," Macintosh, B., et al. *Science*, 350, 6256 (2015)
- 73. "GEMINI PLANET IMAGER OBSERVATIONS OF THE AU MICROSCOPII DEBRIS DISK: ASYM-METRIES WITHIN ONE ARCSECOND," Wang, Jason J., et al. *ApJL*, 811, L19 (2015)
- 74. "BETA PICTORIS' INNER DISK IN POLARIZED LIGHT AND NEW ORBITAL PARAMETERS FOR BETA PICTORIS B," Millar-Blanchaer, Maxwell A., et al. ApJ, 811, 18 (2015)
- "ECCENTRIC JUPITERS VIA DISK-PLANET INTERACTIONS," Duffell, P.C, & Chiang, E. ApJ, 812, 94 (2015)
- 76. "Spiral Arms in Gravitationally Unstable Protoplanetary Disks as Imaged in Scattered Light," Dong, R., Hall, C., Rice, K., & Chiang, E. *ApJL*, 812, L32 (2015)
- 77. "WEAK TURBULENCE IN THE HD 163296 PROTOPLANETARY DISK REVEALED BY ALMA CO OBSERVATIONS," Flaherty, K.M., Hughes, A.M., Rosenfeld, K.A., Andrews, S.M., Chiang, E., et al. ApJ, 813, 99 (2015)
- 78. "Resolved Millimeter-Wavelength Observations of Debris Disks Around Solar-Type Stars," Steele, A., et al. ApJ, 816, 27 (2016)
- 79. "BREEDING SUPER-EARTHS AND BIRTHING SUPER-PUFFS IN TRANSITIONAL DISKS," Lee, E.J., & Chiang, E. ApJ, 817, 90 (2016)
- 80. "Correlations Between Compositions and Orbits Established by the Giant Impact Era of Planet Formation," Dawson, R.I., Lee, E.J., & Chiang, E. *ApJ*, 822, 54 (2016)
- 81. "DUST DYNAMICS IN 2D GRAVITO-TURBULENT DISKS," Shi, J.-M., Zhu, Z., Stone, J.M., & Chiang, E. *MNRAS*, 459, 982 (2016)
- 82. "An M-Dwarf Companion and Its Induced Spiral Arms in the HD 100543 Proto-Planetary Disk," Dong, R., et al. *ApJL*, 816, L12 (2016)
- 83. "How Spirals and Gaps Driven by Companions in Protoplanetary Disks Appear in Scattered Light at Arbitrary Viewing Angles," Dong, R., Fung, J., & Chiang, E. *ApJL*, 826, 75 (2016)
- 84. "Two Transiting Low-Density Sub-Saturns from K2," Petigura, E.A., et al. *ApJ*, 818, 36 (2016)

- 85. "SIGNATURES OF GRAVITATIONAL INSTABILITY IN RESOLVED IMAGES OF PROTOSTELLAR DISKS," Dong, R., et al. ApJ, 823, 141 (2016)
- 86. "A PRIMER ON UNIFYING DEBRIS DISK MORPHOLOGIES," Lee, Eve J. & Chiang, Eugene ApJ, 827, 125 (2016)
- 87. "BRINGING "THE MOTH" TO LIGHT: A PLANET-SCULPTING SCENARIO FOR THE HD 61005 DISK," Esposito, T.M., et al. AJ, 152, 85 (2016)
- 88. "GAP OPENING IN 3D: SINGLE-PLANET GAPS," Fung, Jeffrey & Chiang, Eugene ApJ, 832, 105 (2016)
- 89. "THE SIZES AND DEPLETIONS OF THE DUST AND GAS CAVITIES IN THE TRANSITIONAL DISK J160421.7-213028," Dong, R., et al. ApJ, 836, 201 (2017)
- 90. "SAVE THE PLANET, FEED THE STAR: HOW SUPER-EARTHS SURVIVE MIGRATION AND DRIVE DISK ACCRETION," Fung, Jeffrey & Chiang, Eugene ApJ, 839, 100 (2017)
- 91. "MAGNETOSPHERIC TRUNCATION, TIDAL INSPIRAL, AND THE CREATION OF SHORT-PERIOD AND ULTRA-SHORT-PERIOD PLANETS," Lee, Eve J. & Chiang, Eugene ApJ, 842, 40 (2017)
- 92. "MULTIPLE DISK GAPS AND RINGS GENERATED BY A SINGLE SUPER-EARTH," Dong, R., Li, S., Chiang, E., & Li, H. ApJ, 843, 127 (2017)
- 93. "A THREE-DIMENSIONAL VIEW OF TURBULENCE: CONSTRAINTS ON TURBULENT MOTIONS IN THE HD 163296 PROTOPLANETARY DISK USING DCO⁺," Flaherty, K.M., et al. ApJ, 843, 150 (2017)
- 94. "STELLAR WINDS AND DUST AVALANCHES IN THE AU MIC DEBRIS DISK," Chiang, E. & Fung, J. ApJ, 848, 4 (2017)
- 95. "OPTICALLY THIN CORE ACCRETION: HOW PLANETS GET THEIR GAS IN NEARLY GAS-FREE DISCS," Lee, E.J., Chiang, E. & Ferguson, J. MNRAS, 476, 2199 (2018)
- 96. "SECULAR DYNAMICS OF AN EXTERNAL TEST PARTICLE: THE INVERSE KOZAI AND OTHER ECCENTRICITY-INCLINATION RESONANCES," Vinson, B. & Chiang, E. MNRAS, 474, 4855 (2018)
- 97. "A DECADE OF MWC 758 DISK IMAGES: WHERE ARE THE SPIRAL-ARM-DRIVING PLAN-ETS?," Ren, B., et al. ApJL, 857, L9 (2018)
- 98. "THE ECCENTRIC CAVITY, TRIPLE RINGS, TWO-ARMED SPIRALS, AND DOUBLE CLUMPS OF MWC 758," Dong, R., et al. ApJ, 860, 124 (2018)
- 99. "DIRECT IMAGING OF THE HD 35841 DEBRIS DISK: A POLARIZED DUST RING FROM GEMINI PLANET IMAGER AND AN OUTER HALO FROM HST/STIS," Esposito, T., et al. AJ, 156, 47 (2018)
- 100. "MULTIPLE DISK GAPS AND RINGS GENERATED BY A SINGLE SUPER-EARTH: II. SPACINGS, DEPTHS, AND NUMBER OF GAPS, WITH APPLICATION TO REAL SYSTEMS," Dong, R., Li, S., Chiang, E., & Li, H. *ApJ*, 866, 110 (2018)
- 101. "A BALANCED BUDGET VIEW ON FORMING GIANT PLANETS BY PEBBLE ACCRETION," Lin, J.W., Lee, E.J., & Chiang, E. MNRAS, 480, 4338 (2018)
- 102. "Dynamical Constraints on the HR 8799 Planets with GPI," Wang, Jason J., et al. $AJ,\ 156,\ 192\ (2018)$
- 103. "The Mass of Stirring Bodies in the AU Mic Debris Disk Inferred from Resolved Vertical Structure," Daley, C., et al. ApJ, 875, 87 (2019)
- 104. "THE GEMINI PLANET SURVEY: GIANT PLANET AND BROWN DWARF DEMOGRAPHICS FROM 10–100 AU," Nielsen, E., De Rosa, R.J., Macintosh, B., Wang, J.J., Ruffio, J.-B., Chiang, E., et al. AJ, 158, 13 (2019)

- 105. "THE END OF RUNAWAY: HOW GAP OPENING LIMITS THE FINAL MASSES OF GAS GIANTS," Ginzburg, Sivan, & Chiang, E. MNRAS, 487, 681 (2019)
- 106. "THE DEGREE OF ALIGNMENT BETWEEN CIRCUMBINARY DISKS AND THEIR BINARY HOSTS," Czekala, I., Chiang, E., et al. ApJ, 883, 22 (2019)
- 107. "Sculpting Eccentric Debris Disks with Eccentric Gas Rings," Lin, Jonathan W., & Chiang, E. ApJ, 883, 68 (2019)
- 108. "THE ENDGAME OF GAS GIANT FORMATION: ACCRETION LUMINOSITY AND CONTRACTION POST-RUNAWAY," Ginzburg, Sivan & Chiang, E. MNRAS, 490, 4334 (2019)
- 109. "CIRCUMPLANETARY DISK DYNAMICS IN THE ISOTHERMAL AND ADIABATIC LIMITS," Fung, J., Zhaohuan, Z. & Chiang, E. ApJ, 887, 2, 152 (2019)
- 110. "THE GEMINI PLANET IMAGER VIEW OF THE HD 32297 DEBRIS DISK," Duchene, G., et al. AJ, 159, 251 (2020)
- 111. "DEBRIS DISK RESULTS FROM THE GEMINI PLANET IMAGER EXOPLANET SURVEY'S PO-LARIMETRIC IMAGING CAMPAIGN," Esposito, T.M., et al. AJ, 160, 24 (2020)
- 112. "OBLIQUITY CONSTRAINTS ON AN EXTRASOLAR PLANETARY-MASS COMPANION," Bryan, M., Chiang, E., Bowler, B.P., Morley, C.V., Millholland, S., Blunt, S., Ashok, K.B., Nielsen, E., Ngo, H., Mawet, D., & Knutson, H.A. AJ, 159, 181 (2020)
- 113. "BREAKING THE CENTRIFUGAL BARRIER TO GIANT PLANET CONTRACTION BY MAGNETIC DISC BRAKING," Ginzburg, Sivan & Chiang, E. MNRAS, 491, 34 (2020)
- 114. "THE FIRST HABITABLE ZONE EARTH-SIZED PLANET FROM TESS II: SPITZER CONFIRMS TOI-700D," Rodriguez, J.E., et al. AJ, 160, 117 (2020)
- 115. "SUB-NEPTUNE FORMATION: THE VIEW FROM RESONANT PLANETS," Choksi, N. & Chiang, E. MNRAS, 495, 4192 (2020)
- 116. "How Consumption and Repulsion Set Planetary Gap Depths and the Final Masses of Gas Giants," Rosenthal, M.M., Chiang, E.I., Ginzburg, S., & Murray-Clay, R.A. *MNRAS*, 498, 2054 (2020)
- 117. "Dynamical Evidence of a Spiral Arm-driving Planet in the MWC 758 Proto-Planetary Disk," Ren, Bin, et al. ApJ, 898, 38 (2020)
- 118. "HEAVY-METAL JUPITERS BY MAJOR MERGERS: METALLICITY VERSUS MASS FOR GIANT PLANETS," Ginzburg, Sivan & Chiang, E. *MNRAS*, 498, 680 (2020)
- 119. "An ALMA Survey of λ Orionis Disks: From Supernovae to Planet Formation," Ansdell, Megan, et al. AJ, 160, 248 (2020)
- 120. "As the Worlds Turn: Constraining Spin Evolution in the Planetary-Mass Regime," Bryan, Marta L., Ginzburg, S., Chiang, E., Morley, C., Bowler, B.P., Xuan, J.W. & Knutson, H.A. *ApJ*, 905, 37 (2020)
- 121. "RESOLVING STRUCTURE IN THE DEBRIS DISK AROUND HD 206893 WITH ALMA," Nederlander, A., et al. ApJ, 917, 5 (2021)
- 122. "A COPLANAR CIRCUMBINARY PROTOPLANETARY DISK IN THE TWA 3 TRIPLE M DWARF SYSTEM," Czekala, I., et al. ApJ, 912, 6 (2021)
- 123. "CHONDRULES FROM HIGH-VELOCITY COLLISIONS: THERMAL HISTORIES AND THE AG-GLOMERATION PROBLEM," Choksi, N., Chiang, E., Connolly, H.C., Jr., Gainsforth, Z., & Westphal, A.J. MNRAS, 503, 3297 (2021)
- 124. "PRIMORDIAL OBLIQUITIES OF BROWN DWARFS AND SUPER-JUPITERS FROM FRAGMENTING GRAVITO-TURBULENT DISCS," Jennings, R.M. & Chiang, E. *MNRAS*, 507, 5187 (2021)
- 125. "OBLIQUITY CONSTRAINTS ON THE PLANETARY-MASS COMPANION HD 106906 B," Bryan, M., Chiang, E., Morley, C., Mace, G., & Bowler, B. AJ, 162, 217 (2021)

- 126. "Mysterious Dust-Emitting Object Orbiting TIC 400799224," Powell, B.P., et al. $AJ,\ 162,\ 299\ (2021)$
- 127. "Eccentric Millisecond Pulsars by Resonant Convection," Ginzburg, S., & Chiang, E. *MNRAS*, 509, 1 (2022)
- 128. "A LIKELY FLYBY OF BINARY PROTOSTAR ZCMA CAUGHT IN ACTION," Dong, R., et al. Nature Astronomy, 6, 331 (2022)
- 129. "TESTING PLANET FORMATION FROM THE ULTRAVIOLET TO THE MILLIMETRE," Choksi, N. & Chiang, E. *MNRAS*, 510, 1657 (2022)
- 130. "Multiwavelength Vertical Structure in the AU Mic Debris Disk: Characterizing the Collisional Cascade," Vizgan, D., et al. ApJ, 935, 131 (2022)
- 131. "Testing the Interaction Between a Substellar Companion and a Debris Disk in the HR 2562 System," Zhang, S., et al. AJ, 165, 219 (2023)
- 132. "GIANT IMPACTS AND DEBRIS DISC MORPHOLOGY," JONES, J.W., Chiang, E., et al. ApJ, 948, 102 (2023)
- 133. "Chaotic Winds from a Dying World: A One-Dimensional Map for Evolving Atmospheres," Bromley, J. & Chiang, E. *MNRAS*, 521, 5746 (2023)
- 134. "Exciting the TTV Phases of Resonant Sub-Neptunes," Choksi, N. & Chiang, E. MNRAS, 522, 1914 (2023)
- 135. "THE MAXIMUM ACCRETION RATE OF A PROTOPLANET: HOW FAST CAN RUNAWAY BE?," Choksi, N., Chiang, E., Fung, J., & Zhu, Z. *MNRAS*, 525, 2806 (2023)
- 136. "Sweeping Secular Resonances and Giant Planet Inclinations in Transition Discs," Zanazzi, J.J. & Chiang, E. MNRAS, 527, 7203 (2023)
- 137. "DAMPING OBLIQUITIES OF HOT JUPITER HOSTS BY RESONANCE LOCKING," Zanazzi, J.J., Dewberry, J., & Chiang, E. *ApJL*, submitted (2024)
- 138. "Spectral Energy Distributions of Disc-Embedded Accreting Protoplanets," Choksi, N. & Chiang, E. *MNRAS*, submitted (2024)

Minor Planet Electronic Circulars / International Astronomical Union Circulars

- 1. Co-author of over 100 MPECs announcing discoveries of Kuiper Belt Objects
- 2. Chiang, E. IAU Circular 8044, 3 (2003): Discovery of first Neptune Trojan 2001 QR₃₂₂

Teaching Experience

$2001{-}present$	Berkeley Astrophysics Courses (12 different classes in 20 years) Berkeley, CA
	 INTRODUCTION TO ASTROPHYSICS II (UNDERGRADUATE) astro.berkeley.edu/~echiang/Astro7B/7B.html Gateway to the double major in Astronomy and Physics. Interacting binaries, accretion disks, black holes, gravitational lensing, galaxies, cosmology. Tour of experimental CMB labs.
	• INTRODUCTION TO ASTROPHYSICS I (ADVANCED UNDERGRADUATE) astro.berkeley.edu/~echiang/Astro7A/7A.html Gateway to the double major in Astronomy and Physics. Instrumentation, radiation, stellar structure, compact objects. Field trip to Lick Observatory.
	• PLANETARY ASTROPHYSICS (UNDERGRADUATE/GRADUATE) astro.berkeley.edu/~echiang/planetastro/planetastro.html Planetary physics. Radiometric dating, atmospheres, interiors, minor bodies, extrasolar plan- ets, and planet formation. Student blackboard presentations.
	• ORDER-OF-MAGNITUDE PHYSICS (GRADUATE AND ADVANCED UNDERGRADUATE) astro.berkeley.edu/~echiang/oom/oom.html The art of estimating any quantity under the Sun (e.g. cost of Obama's inaugural ball; minimum water depth for cliff diving). Attracts graduate students from Physics, Astronomy, Earth and Planetary Science, Electrical Engineering, and Applied Science and Technology.
	• ASTROPHYSICAL FLUID DYNAMICS (GRADUATE AND ADVANCED UNDERGRADUATE) astro.berkeley.edu/~echiang/fluid/fluid.html Core graduate course on hydrodynamics and magnetohydrodynamics. Order-of-magnitude and technical problems, emphasis on developing familiarity with the literature. Oral exams.
	• RADIATIVE PROCESSES IN ASTROPHYSICS (GRADUATE AND ADVANCED UNDERGRADUATE) astro.berkeley.edu/~echiang/rad/rad.html Core graduate course on how we see what we see. Continuum processes, atomic and molecular line radiation, radiative transfer algorithms. Oral exams.
	• GALACTIC DYNAMICS (GRADUATE) coma.berkeley.edu/courses/ay250_f07 Lecture and round-table discussions on spiral structure, N-body algorithms, relaxation mech- anisms, Schwarzchild's method, dynamical friction, galaxy formation. Students posed and answered their own questions by constructing their own wiki pages. Beta-tested Binney & Tremaine's 2nd Edition of <i>Galactic Dynamics</i> .
	 PLANETARY DYNAMICS (GRADUATE) astro.berkeley.edu/~echiang/classmech/classmech.html Lecture and round-table discussions of papers on extrasolar planets, orbital perturbation the- ory, resonances, chaos, planet formation. Student blackboard derivations.
	• PHYSICS OF SUPER-EARTHS (GRADUATE) Reading seminar on formation and evolution of Earth and Earth-like planets, attracting stu- dents from Astronomy and Earth and Planetary Science. Problem sets and weekly readings.

- ACCRETION DISKS (GRADUATE) Reading seminar on mechanisms for angular momentum transport in astrophysical disks, with mini-lectures.
- CLASSIC PAPERS IN THEORETICAL ASTROPHYSICS (GRADUATE) Reading seminar on seminal papers in theoretical astrophysics, from Parker's solar wind to Press-Schechter cosmological structure formation.
- CLASSIC PAPERS IN EARTH AND PLANETARY SCIENCE (GRADUATE) Reading seminar on seminal papers in geophysics, from meteorological chaos to mantle convection.

1993 MIT WRITING CENTER TUTOR

• Coached students on how to improve their prose. Critiqued scientific papers, essays, resumes and cover letters.

Cambridge, MA

Committees and Professional Service

- 1. JAMES WEBB SPACE TELESCOPE CYCLE 3 TAC EXECUTIVE COMMITTEE (2024)
- 2. BERKELEY HEISING-SIMONS FACULTY FELLOWS SELECTION COMMITTEE (2023-present)
- 3. Berkeley Sexual Violence / Harassment Peer Review Committee (2020-present)
- 4. BERKELEY ASTRONOMY DEPARTMENT, VICE CHAIR (2020-present)
- 5. BERKELEY ASTRONOMY DEPARTMENT, HEAD UNDERGRADUATE ADVISOR (2020-present)
- 6. BERKELEY CALTEACH FACULTY DIRECTOR (2020–2023; training STEM majors to become K-12 accredited teachers)
- 7. BERKELEY ASTRONOMY DEPARTMENT, CLIMATE ADVISORY CHAIR (2015–2018, 2020–present, promoting equity and inclusion)
- 8. BERKELEY ASTRONOMY, HEAD GRADUATE ADVISOR (2008–2015, 2020)
- 9. Berkeley Math & Physical Sciences Dean Search Committee (2020–21)
- 10. Berkeley Senate Committee on Teaching (2018–2021)
- 11. UCSD Physics Department, Chair of External Review Committee (2019)
- 12. UCSC ASTRONOMY DEPARTMENT, MEMBER OF EXTERNAL REVIEW COMMITTEE (2016)
- 13. BERKELEY ASTRONOMY DEPARTMENT CHAIR (2015–2018; led 2017-2018 Academic Review; founded Climate Advisory Committee; led 2 faculty searches, 3 retention cases, 10+ merit and promotion cases, all successful; raised \$300k+)
- 14. DIRECTOR, BERKELEY CENTER FOR INTEGRATIVE PLANETARY SCIENCE (CIPS) (2011–2015; organizer of weekly CIPS Planet and Star Formation Seminar; led 2013 review which restored annual budget)
- 15. BERKELEY ASTRONOMY, CHAIR OF GRADUATE ADMISSIONS (2010–2014, 2019)
- 16. NASA SAGAN FELLOWSHIP SELECTION COMMITTEE (panelist to select national prize postdoctoral fellows in exoplanet science)
- 17. NASA HUBBLE FELLOWSHIP SELECTION COMMITTEE (panelist to select national prize postdoctoral fellows across all fields of astrophysics)
- 18. NATIONAL ACADEMY OF SCIENCES ASTRO2010 DECADAL SURVEY, INVITED SCIENCE FRON-TIER PANELIST (2010)
- 19. BAY AREA CONSORTIUM FOR EXOPLANET SCIENCE (BACES), SCIENTIFIC ORGANIZING COMMITTEE (2012–2015)
- 20. Berkeley Science Diversity Programs, Astronomy Liaison and Co-I (2010–2013, PI Colette Patt)

- 21. Berkeley Senate Committee on Courses of Instruction and Academic Program (COCI; 2011–2015)
- 22. Berkeley Senate Committee on Undergraduate Scholarships, Honors, and Fi-Nancial Aid (CUSHFA; 2011–2015)
- 23. Berkeley Astronomy, Chair of Education Component of Academic Review (2008)

Selected Presentations (average 4 invited colloquia/seminars per year)

1. "Planet Formation Post-Kepler"

Joint Colloquium for MPIE, MPIA, ESO Garching (January 2020), CITA (May 2020), Cornell (September 2020), UCLA/JPL/Berkeley CIPS (October 2020), Victoria (March 2021)

2. "Future Directions in Planet Formation"

Heising-Simons 51 Peg b Planetary Science Fellowship Symposium (San Francisco 2018)

3. "Genesis of the Super-Earths"

Kavli ExoFrontiers Symposium (Cambridge UK 2017); Exoplanets I (Davos, Switzerland 2016)

4. "Close-in Planets"

Caltech (2015), University of Toronto at Scarborough 'Planet Day' (2015), NOVA Lecturer for the Netherlands Research School for Astronomy (2012)

- 5. "PROTOPLANETARY DISKS" Caltech Planetary Science seminar (2015)
- 6. "Planetesimal Formation and Disk Accretion"

Cornell (2009), Harvard Institute for Theory and Computation (2009), UCLA (2010), University of Toronto (2011)

7. "Planet Formation: Observations and Theory"

Invited 6-hour lecture series for the ISIMA Summer School on "Star and Planet Formation," at the Kavli Institute for Astronomy and Astrophysics at Beijing University (2011)

8. "Resonant Rings: The Kuiper Belt and Beyond"

Invited colloquium at 15+ institutions, including MIT (2006), UC Berkeley (EPS Distinguished Speaker, 2006), American Museum of Natural History (2006), Caltech (2005), Institute for Advanced Study (2004), Ohio State University (2004)

9. "PROTOPLANETARY DISKS: FROM T TAURI STARS TO DEBRIS SYSTEMS"

Invited 5-hour lecture series for the 24th Jerusalem Winter School on "Lives of Low-Mass Stars and Their Planets," at Hebrew University in Israel (2006/2007)

10. "Order-of-Magnitude Adventures in Planetary Science"

Invited 3-hour lecture series for the International Planetary School in Kobe, Japan (2005)

Selected Public Outreach

1. Order-of-Magnitude Estimation and the Deepwater Horizon Oil Spill

Estimated correctly the oil spill rate from the April 2010 British Petroleum oil rig explosion in the Gulf of Mexico. Provided source material for the Final Report of President Obama's Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. See links to news articles and a history of events at astro.berkeley.edu/~echiang/bp/bp.html.

2. "Ashes to Ashes, Dust to Dust: The Birth and Death of Planets"

Miller Institute for Basic Science (2013), Silicon Valley Astronomy Lecture Series (2023)

3. "Close-in Planets: From Hot Jupiters to Super-Moons"

Mount Diablo Astronomical Society (2012); SETI Institute (2013)

4. "Action and Reaction: How Gravity Shapes Planetary Systems"

Berkeley COMPASS Project for undergraduates (2010), San Francisco Amateur Astronomers (2009), Berkeley Astrophysics Roundtable (for donors; 2009)

5. "Beyond Pluto"

Berkeley CIPS Public Lecture (2006), Mount Tamalpais Astronomical Society (2006), Silicon Valley Astronomy Lecture Series (audience of 600+) (2004), Sonoma State "What Physicists Do" Lecture Series (2004), Mount Diablo Astronomical Society (2003), Cal Day Astronomy Department Open House (2002)

Languages Mandarin Chinese (ILR Level 2+) French (ILR Level 1)

References Available upon request