ANDREW DICKERSON

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EXPERTISE

RESEARCHER: Droplet Mechanics, Fluid-Structure Interaction, Biolocomotion
MECHANICAL ENGINEER: Fluid Mechanics, Thermodynamics, Heat Transfer

I BIOGRAPHICAL DATA

EDUCATION

DEGREE	YEAR	UNIVERSITY	FIELD	ADVISOR
DOCTOR OF PHILOSOPHY	2014	Georgia Institute of Technology	Mechanical Engineering	David Hu
MASTER OF SCIENCE	2012	Georgia Institute of Technology	Mechanical Engineering (Business Minor)	David Hu
BACHELOR OF SCIENCE	2009	Georgia Institute of Technology	Mechanical Engineering	

APPOINTMENTS

TITLE	YEARS	ORGANIZATION
ASSISTANT PROFESSOR	Aug. 2016-present	University of Central Florida Mechanical and Aerospace Engineering
SENIOR GRADUATE ENGINEER	Jan. 2014-July 2016	Meggitt PLC Christchurch, Dorset, United Kingdom

II RESEARCH

Keywords: Fluid-Structure Interaction, Droplet Physics, Insect Kinematics

PUBLICATIONS

PEER REVIEWED JOURNAL ARTICLES
(H-INDEX: 6, CITATIONS: 162) ORCID: 0000-0003-1220-1048
STUDENTS ADVISED ARE UNDERLINED. *Invited Submissions

(1) Watson, D.A., Souchik, C.J., Weinberg, M.P., Bom, J.M., **Dickerson, A.K.** (2020) Making a splash with fabrics in hydrophilic sphere entry. *Journal of Fluids and Structures*. https://doi.org/10.1016/j.jfluidstructs.2020.102907

(2) Alam, MD E., Kauffman, J.L., **Dickerson A.K.** (2020) Drop ejection from vibrating damped, dampened wings. *Soft Matter*. https://doi.org/10.1039/C9SM02253H

(3) *Smith, N.M., **Dickerson, A.K.**, Murphy, D. (2019) Organismal aggregations exhibit fluidic behaviors: a review. *Bioinspiration & Biomimetics*. https://doi.org/10.1088/1748-3190/ab0253.

(4) *Watson, D.A., Stephen, J.L., **Dickerson, A.K.** (2019) Impacts of free-falling spheres on a deep liquid pool with altered fluid and impactor surface conditions. *Journal of Visualized Experiments*. http://dx.doi.org/10.3791/59300.

(5) **Dickerson, A.K.**, Olvera, A., Luc, Y.K. (2018) Void entry by Aedes aegypti (Diptera: Culicidae) mosquitoes is lower than would be expected by a randomized search. *Journal of Insect Science*. https://doi.org/10.1093/jisesa/iey115.

(6) Smith, N.M., Clayton, G.V., Khan, H.A., **Dickerson, A.K.** (2018) Mosquitoes modulate leg dynamics to accommodate surface roughness. *Bioinspiration & Biomimetics*. https://dx.doi.org/10.1088/1748-3190/aaed87.

(7) Watson, D.A., Stephen, J.L., **Dickerson, A.K.** (2018) Jet amplification and cavity formation induced by penetrable fabrics in hydrophilic sphere entry. *Physics of Fluids*. https://doi.org/10.1063/1.5036655. (issue cover image)

(8) Smith, N.M., Ebrahimi, H., Ghosh, R., **Dickerson, A. K.** (2018) High-speed microjets issue from bursting oil gland reservoirs of citrus fruit. *Proceedings of the National Academy of Sciences*, USA. https://doi.org/10.1073/pnas.1720809115.

(9) **Dickerson, A.K.**, Shankles, P.G., Berry Jr, B.E., Hu, D.L. (2015) Fog and dense gas disrupt mosquito flight due to increased aerodynamic drag on halteres. *Journal of Fluids and Structures*. https://doi.org/10.1016/j.jfluidstructs.2015.03.016.

(10) **Dickerson, A.K.**, Liu, X., Zhu, T., Hu, D.L. (2015) Fog spontaneously folds mosquito wings. *Physics of Fluids*. https://doi.org/10.1063/1.4908261.

(11) **Dickerson, A.K.**, Hu, D.L. (2014) Mosquitoes actively remove drops deposited by fog and dew. *Integrative and Comparative Biology*. https://doi.org/10.1093/icb/icu042.

(12) **Dickerson, A.K.**, Shankles, P., Hu, D. L. (2014) Raindrops push and splash flying insects. *Physics of Fluids*. https://doi.org/10.1063/1.4865819.

(13) **Dickerson, A.K.**, Mills, Z., Hu, D. L. (2012) Wet mammals shake at tuned frequencies to dry. J*ournal of the Royal Society Interface*. https://doi.org/10.1098/rsif.2012.0429.

(14) **Dickerson, A.K.**, Shankles, P., Madhavan, N., Hu, D. L. (2012) Mosquitoes survive raindrop collisions by virtue of their low mass. *Proceedings of the National Academy of Sciences*, USA. https://doi.org/10.1073/pnas.1205446109.

CONFERENCE PROCEEDINGS (REFEREED)

(1) **Dickerson, A.K.**, Rajamani, R., Boost, M., Jackson, J. (2015) Determining remaining useful life for Li-ion batteries. *SAE Aerotech*. Seattle, WA. https://doi.org/10.4271/2015-01-2584.

TECHNICAL ARTICLES (NOT REFEREED)

(1) **Dickerson, A.K.** (2019) What can citrus teach us about fluid dispersal? *The Science Breaker*. https://doi.org/10.25250/thescbr.brk182

(2) **Dickerson, A.K.** (2018) Citrus Fruits Inspire the Next Generation of Airborne Drug Delivery. *OndrugDelivery Magazine*, Issue 92, pp. 30-34.

MANUSCRIPTS IN ADVANCED ROUNDS

MANUSCRIPTS UNDER REVIEW

MANUSCRIPTS IN PREPARATION

(1) Watson, D.A., Bom, J.M., Souchik, C., **Dickerson, A.K.** (2019) Water entry of chemically heterogeneous spheres.

(2) Smith, N.M., Balsalobre, J.B., **Dickerson, A.K.** (2019) Mosquitoes use multiple bounces to engage landing substrates.

PRESENTATIONS

INVITED UNIVERSITY SEMINARS

(1) 13 Mar, 2020. University of Tennessee Knoxville. Department of Mechanical, Aerospace, and Biomedical Engineering. "Crack, buzz, and plop: the coupled mechanics of jetting citrus, flying insects, and splashing projectiles."

(2) 11 Mar, 2020. Georgia Tech. Department of Physics. "Crack, buzz, and plop: the coupled mechanics of jetting citrus, flying insects, and splashing projectiles."

(3) 2 Mar, 2020. Northern Arizona University. Department of Mechanical Engineering. "Crack, buzz, and plop: the coupled mechanics of jetting citrus, flying insects, and splashing projectiles."

(4) 22 Jan, 2018. Royal Veterinary College. Department of Comparative Biomedical Sciences. "Mosquito takeoffs from horizontal surfaces."

(5) 2 Sept, 2016. University of Central Florida. Department of Mechanical and Aerospace Engineering. Internal Seminar. "Flying insect response to particulate environments."

WORKSHOP AND SYMPOSIA ORGANIZATION

(1) **Organizer**. 25 July, 2017. SES 2017. Boston, MA. Symposium: "Dermal and Dermal Inspired Systems."

PLENARY TALKS

INVITED CONFERENCE PRESENTATIONS

CONFERENCE PRESENTATIONS

(1) Jan. 2020. Austin, TX. "Mosquitoes use multiple bounces to engage landing zones." Society for Integrative and Comparative Biology. It's not the fall that kills you, it's the landing.

(2) Nov. 2019. Seattle, WA. "Underwater acrobatics of partially-coated spheres." American Physical Society: Division of Fluid Dynamics. Surface Tension III.

(3) Nov. 2019. Seattle, WA. "Water entry of hydrophilic spheres through fabric-fluid interfaces." American Physical Society: Division of Fluid Dynamics. (poster)

(4) **Session Chair**. Jan. 2018. Tampa, FL. "On the survival of water striders in rainfall." Society for Integrative and Comparative Biology. Breaking the Surface.

(5) Nov. 2018. Atlanta, GA. "Pine straw in rain." American Physical Society: Division of Fluid Dynamics. Drops: Elastic Surfaces and Fibers.

(6) Nov. 2018. Atlanta, GA. "To eject a droplet from a dampened, damped beam." American Physical Society: Division of Fluid Dynamics. Drops: Elastic Surfaces and Fibers.

(7) Jan. 2018. San Francisco, CA. "Mosquito takeoffs from horizontal surfaces." Society for Integrative and Comparative Biology. Insect Flight: Living in an Unstable World.

(8) **Session Chair**. Nov. 2017. Denver, CO. "On the reduction of splash-back." American Physical Society: Division of Fluid Dynamics. Surface Tension Effects.

(9) Nov. 2017. Denver, CO. "Citrus jets." American Physical Society: Division of Fluid Dynamics.

(10) **Session Chair**. July 2017. Boston, MA. "Exploring the anti-fouling properties of fur." Society of Engineering Science. Dermal and Dermal Inspired Systems.

(11) **Session Chair**. July 2017. Boston, MA. "Citrus jets." Society of Engineering Science. Dermal and Dermal Inspired Systems.

(12) **Session Chair**. Jan. 2017. New Orleans, LA. "Citrus jets." Society for Integrative and Comparative Biology. Fluids and Flow II.

(13) Sept 2015. Seattle, WA. "Determining remaining useful life of Li-ion batteries." SAE: Aerotech.

(14) Jan 2014. Austin, TX. "To eject a drop, from wet-dog shaking to urination." Society for Integrative and Comparative Biology.

(15) Nov. 2013. Pittsburgh, PA. "Dew-driven folding of insect wings." American Physical Society: Division of Fluid Dynamics.

(16) Nov 2012. San Diego, CA. "Mosquito flight failure in heavy fog" American Physical Society: Division of Fluid Dynamics.

(17) Jan 2012. Charleston, SC. "Insects flying in the rain" Society for Integrative and Comparative Biology.

(18) Nov 2011. Baltimore, MD. "How mosquitoes fly in the rain." American Physical Society: Division of Fluid Dynamics.

(19) Nov 2010. Long Beach, CA. "Wet-dog shake." American Physical Society: Division of Fluid Dynamics.

GRANTS AND CONTRACTS

FUNDED PROPOSALS

TITLE	FUNDING ORGANIZATION	INVESTIGATORS (PI BOLD)	LEVEL OF FUNDING	SHARE	DATES
CAREER: Tuning liquid jet and splash dynamics by deformable and heterogeneous boundaries	NSF	**Dickerson**	$500,000	100%	1/6/20-1/5/25
Quantifying Threshold Airborne Concentrations of Transfluthrin for Mosquito Control Applications	Florida Dept. of Agriculture and Consumer Services	**Willenberg**, Dickerson	$180,902	50%	9/18/19-8/15/21

REU Site: Research Experiences for Undergraduates Site on Internet of Things (IoT)	NSF	**Turgut**, Cho, Boloni, Massi, Welch, Zhou, Dickerson, Hasan, Bruder	$323,945	5%	05/01/19-04/30/22
Fur Anti-Fouling via Physiological Mechanisms	NSF	**Dickerson**, Ghosh, de Bekker	$449,805	46%	9/1/18-8/31/21
Aerospace & Defense Fundamental Research Project	Lockheed Martin	**Kassab**, Xu, Dickerson	$25,000	19%	09/01/17-12/31/17
Worthington Jet Reduction of a Solid Impact on a Liquid Surface by Alteration of Liquid Surface Conditions	UCF OUR	**Dickerson**	$300	100%	8/21/17-12/17

III TEACHING

CLASSROOM

COURSES TAUGHT

COURSE NUMBER	COURSE TITLE	CREDITS	CLASS	SEMESTER	# OF STUDENTS	STUDENT PERCEPTION OF INSTRUCTION
EML 6712	Viscous Flow	3	Grad.	Spring 2020	13	–
ENG 3343	Thermodynamics I (mixed mode)	3	Junior	Fall 2019	169	3.70
EML 3701	Fluid Mechanics I	3	Junior	Sum. 2019	132	3.59
*EML 4841H	Locomotion and Design in Nature	3	Junior/ Senior	Spring 2019	18	4.36
EGN 3343	Thermodynamics I (mixed mode)	3	Junior	Fall 2018	226	3.19
EML 3701	Fluid Mechanics I	3	Junior	Sum. 2018	141	3.24
EGN 3343	Honors Thermodynamics	3	Junior	Spring 2018	20	4.62
EGN 3321H	Honors Engineering Analysis - Dynamics	3	Soph./ Junior	Fall 2017	20	4.17
EGN 3343	Honors Thermodynamics	3	Junior	Spring 2017	26	4.58

*Courses developed

PUBLISHED CLASSROOM MATERIAL

(1) Andrew Dickerson. "Mosquitoes: Surviving raindrop impacts by virtue of their low mass." Using Everyday Examples in Engineering. Engage Engineering. 2012.

(2) Andrew Dickerson. "The Wet-Dog Shake: Overcoming Surface Tension with Centripetal Force." Using Everyday Examples in Engineering. Engage Engineering. 2011.

ADVISING

PHD STUDENTS SUPERVISED					
NAME	**DATES**	**PROJECTS**	**FUNDING**	**PUBLICATIONS**	**PRESENTATIONS**
*Nicholas Smith	Fall 2016 -present	Citrus jets, mosquito kinematics, swarming	ORC Fellowship FDACS GTA	PNAS, 2018 Bioinsp. & Biomim. 2018 Bioinsp. & Biomim. 2019	SICB 2017 SES 2017 APS DFD 2017 SICB 2018 SICB 2020
Md. Erfanul Alam	Fall 2017 -present	Drop release from elastic surfaces	ORC Fellowship NSF CAREER GTA	Soft Matter, 2020	APS DFD 2018
*Daren Watson	Fall 2017 -present	Water entry Water striders	Fulbright Scholar NSF CAREER GTA	Physics of Fluids, 2018 JoVE, 2019	APS DFD 2017 SICB 2019 APS DFD 2019
Miloš Krsmanovic	Fall 2019 -present	Fur anti-fouling	ORC Fellowship		

*PhD Candidate

UNDERGRADUATE STUDENTS SUPERVISED				
STUDENT	**YEARS**	**PROJECT**	**MAJOR**	**PUBLICATIONS/ AWARDS/NOTES**
Maria Urdaneta	2020	Fur in rain	ME	
Ryan Deryk	2020	Mosquito landings	ME	
Jonathan Galvez	2020	Water striders in rain	ME	
Madison Weinberg	2019-2020	Splashing spheres	ME	Watson et al. 2020
Jas Balsalobre	2019-2020	Mosquito landings	ME	
Eric Heinrich	2019	Fur Anti-fouling	AE	
Jacob Biery	2019-2020	Pine Straw in Rain	ME	
Kevin Shitaho	2019	Drying beams and jets	ME	
Pete Orkweha	2019	FSI Machine Learning	Mechatronics	NSF REU
Alexis Downing	2019	FSI Machine Learning	Comp. Eng.	NSF REU
Mason Thornton	2019	Water striders in rain	AE	
Kylie Heckman	2019	Mosquito landings	ME	
Michael Cassette	2019	Drying beams and jets	AE	
Devin Unterreiner	2019	Ant locomotion impacted by zombie fungus	ME	EXCEL
Marcos Jayo	2019	Ant locomotion impacted by zombie fungus	ME	EXCEL
Josh Bom	2018-2019	Splashing spheres	ME	Watson et al. 2020
Alex D'Angelo	2018-2019	Mosquito flight paths and landings	ME	
Chris Souchik	2018-2019	Splashing spheres	ME	Watson et al. 2020
Ryan Diamco	2018	Water striders in rain	ME	
Alexis Khalil	2018-2019	Mosquito flight paths	ME	
Sam Kleiner	2018-2019	Drying beams	ME	
Karim Kodieh	2018	Pine straw in rain	ME	
Amy Lebanoff	2018-2019	Pine straw in rain	ME	APS DFD 2018
Logan Armagost	2018	Mosquito flight paths	AE	
Craig Stuart	2018	Cantilever drying	ME	
Hiba Kahn	2017	Mosquito takeoffs	ME	Smith et al. 2018

Dwayne Negron	2017	Anti-fouling in fur	ME	
Zachary Spikes	2017	Flume build	ME	
Jeremy Stephen	2017	Splash control	ME	Watson et al. 2018 SURE
Rickie Galasso	2017	Citrus jets	ME	
Grace Clayton	2017	Mosquito takeoffs	ME	Smith et al. 2018 EXCEL Boeing UG Research SURE Poster Award
Yva Luc	2017	Citrus jets	BMS	Dickerson et al. 2018
Dana Mikkelsen	2017-2019	Mosquito flight, drying cantilevers	AE	
Vishal Shah	2017	Anti-fouling in fur	Bio	
Kiah Franta	2017	Anti-fouling in fur	Bio	
Alexander Olvera	2016-2018	Citrus jets	AE	Dickerson et al. 2018 SURE
Nico Gonzales	2016	Citrus jets	ME	
Erik Vickers	2013	Mosquito wing folding	ME	
Karamjit Singh	2013	Mosquito wing folding	ME	
Chengshi Wang	2013	Mosquitoes in fog	ME	
Hyun Choe		Mosquitoes in fog mechanics	ME	PURA
Eric Yi	2012	Butterfly flight	ME	
Bruce Berry	2012	Mosquitoes in fog	ME	PURA Dickerson et al. 2015
David Kim	2012	Mosquitoes in dew	ME	PURA
Shivani Goswami	2012	Mosquitoes flying through bednets	Bio	PURA
Peter Shankles	2011-2013	Mosquitoes in rain and fog	PTFE	PURA Dickerson et al. 2012 Dickerson et al. 2014 Dickerson et al. 2015
Rob DeBernard	2010	Mechanics of the wet-dog shake	ME	
Zachary Mills	2010	Mechanics of the wet-dog shake	ME	PURA Dickerson et al. 2012

POSTDOCTORAL SCHOLARS SUPERVISED					
NAME	**DATES**	**PROJECTS**	**FUNDING**	**PUBLICATIONS**	**PRESENTATIONS**
Dipankar Biswas	Summer 2019 -present	Fur Anti-Fouling	NSF P3		

IV PROFESSIONAL ACTIVITIES

PROFESSION SERVICE

REVIEWER FOR SCIENTIFIC JOURNALS

(1) Ad-hoc for *Bioinspiration and Biomimetics*, 2020

(2) Ad-hoc for *Journal of Fluid Mechanics*, 2020

(3) Ad-hoc for *Ethology*, 2019

(4) Ad-hoc for *Mechanism and Machine Theory*, 2019

(5) Ad-hoc for *Insects*, 2019

(6) Ad-hoc for *Journal of Harbin Institute of Technology*, 2019
(7) Ad-hoc for *Soft Matter*, 2018, 2019
(8) Ad-hoc for *Physics of Fluids*, 2018, 2019
(9) Ad-hoc for *Biomimetics*. 2017
(10) Ad-hoc for *Journal of Bionic Engineering*. 2017
(11) Ad-hoc for *Journal of Insect Science*. 2016-2017
(12) Ad-hoc for *Journal of Experimental Biology*. 2017
(13) Ad-hoc for *Nature Scientific Reports*. 2016
(14) Ad-hoc for *Micromachines*. 2016

REVIEWER FOR FUNDING AGENCIES

(1) NSF Graduate Research Fellowship. 2020
(2) NSF, Physics of Living Systems. 2018

SOCIETY MEMBERSHIPS

(1) Society of Integrative and Comparative Biology
(2) American Physical Society

UNIVERSITY AND COMMUNITY SERVICE

EXTRAMURAL ACTIVITIES

(1) 3 March 2017. Judge for Florida TSA dragster competition.
(2) 24 Jan 2017. Invited speaker for local American Society of Mechanical Engineering chapter.

INTRAMURAL ACTIVITIES (UCF)

(1) CAREER mentor for MAE and MSE
(2) Project-based (Active) Learning Committee (MAE)
(3) Lecturer/Instructor Promotion Committee (MAE)

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(4) 29 Jan 2020. CAREER Discussion Panelist
(5) 15 Nov 2019. Represented MAE at the National Merit Scholars Dinner.
(6) 3 Oct 2019. Host/speaker for visiting group of Australian high school students.
(7) 4 April 2019. Judge for Showcase of Undergraduate Research Excellence.
(8) 16 Nov 2018. Represented MAE at the National Merit Scholars Dinner.
(9) 5 April 2018. Judge for Showcase of Undergraduate Research Excellence.
(10) 23 March 2018. Represented MAE at the National Merit Scholars Dinner.
(11) 21 March 2018. Speaker for Pi Tau Sigma monthly meeting.
(12) 27 Nov 2017. Represented MAE at the National Merit Scholars Dinner.
(13) 4 April 2017. Judge for the Graduate Research Forum poster competition.
(14) 15 Sept 2016. Reviewer for MRI Proposal submissions to NSF for UCF's ORC.

PHD READING COMMITTEE MEMBERSHIPS

NAME	DEFENSE DATE	DEPARTMENT	COMMITTEE CHAIR
Xiaochen Wang	29 June 2017	MSE	Joe Cho
Kenneth Thompson	27 March 2018	MAE	Yunjun Xu

MS READING COMMITTEE MEMBERSHIPS			
NAME	**DEFENSE DATE**	**DEPARTMENT**	**COMMITTEE CHAIR**
Dane Taylor	–	MAE	Samick Bhattacharya
Tyler Scofield	–	MAE	Samick Bhattacharya

CONSULTING WORK

I have consulted for several nature documentaries and books that replicated experiments originally from my lab.

(1) Monsoon by BBC, with Robert Wilcox, Aug 21, 2012 -mosquitoes.

(2) Hidden Kingdoms, BBC Natural History Unit, with Katrina Bradley -mosquitoes.

(3) BBC Two, The Wonder of Dogs. 3-part series. Laura Voek.

V RECOGNITION AND AWARDS

(1) Faculty Fellowship to Israel, Jewish National Fund. Winter 2019/2020.

(2) Honorable mention poster in Air Products ME Undergraduate Research Symposium for "Mosquito flight failure in heavy fog" with Bruce Berry and Peter Shankles. $50. April 18, 2013.

(3) Best Paper Award, awarded by the Sigma Xi Georgia Tech Chapter. March 1, 2013.

(4) Most Viewed Video of the Week, National Public Radio Science Friday. 2010.

(5) Temple Inland Foundation Scholarship. $10k. 2005-2009.

(6) University of West Georgia Presidential Scholarship. 2005-2006.

(7) West Georgia Foundation Scholarship. 2005

(8) Burson Memorial Scholarship. 2005

(9) Eagle Scout Award. 2005.

VI OUTREACH

EXTRAMURAL

(1) 28 Feb, 2020. Visited Oviedo High School to provide science fair poster feedback.

(2) 12 Nov, 2019. Speaker for Oviedo High School's 'Teach-In.'

(3) 30 Jan, 2019. Oviedo High School science fair judge.

(4) 12 Nov, 2018. Research forum panelist at Oviedo High School.

(5) 19 Apr, 2017. Visited Jackson Heights Middle School, Oviedo, FL to demonstrate "Citrus Jets" activity for gifted students.

HIGH SCHOOL STUDENTS SUPERVISED Every summer, my lab hosts internships for local high school students interested in biomechanics and learning new experimental techniques. They work alongside graduate students and meet regularly with myself.			
YEAR	**STUDENT**	**PROJECT**	**PUBLICATIONS/AWARDS**
2019	Shea McLinden	Drop impact on fibers	
	Jade Soto	Mosquito landings	
	Alex Tao	Time-dependent fabric	
	Juliet St. Clair	Jet stability	
2018	Erin Chou	Drying beams	
	Anna Wimberley	Mosquito takeoffs/flight path	
	Jade Monteiro	Mosquito takeoffs/flight path	
2017	Katie Collier	Water strider raindrop impact	
	Hannah Breed	Water strider raindrop impact	
	Julia Holt	Mosquito takeoffs	
2013	Sam Beadles	Mosquito wing folding	
	Courtney Clement	Mosquito wing folding	
2011	Nihar Madhavan	Mosquitoes in rain	Dickerson et al. 2012

INTRAMURAL

(1) 25 Oct. 2019, Hosted two groups of K-12 students (65) in our lab for "STEM Day" and provided physics demonstrations using lab equipment.

(2) 25 October 2018. Hosted a group of F.L.E.A.R.N. students on a lab tour.

(3) 13 June 2018. Speaker for Camp Connect representing the ME discipline.

(4) 15 June 2017. Hosted four groups of 8th-11th grade students in our lab for "Camp Connect" and demonstrated the use of high-speed cameras and digital microscope.

(5) 28 Oct. 2016, Hosted two groups of K-12 students (65) in our lab for "STEM Day" and demonstrated the use of high-speed videography in research.

VII PRESS COVERAGE

Frequently, my work is featured in domestic and international media outlets. I often serve as an invited guest on television, and radio shows, and do interviews for online and in-print magazines.

CITRUS JETS

DOMESTIC ARTICLES

17 July 2018. **The New York Times.** "Secrets of Citrus Micro-Jets" James Gorman.

20 Jun. 2018. **The University Network (TUN)**. "Orange Peels Hold Secret to Design of Safer Bridges, Emergency Inhalers" Sam Benezra.

14 Jun. 2018. **Florida Trend**. "Orange peels may hold secret to airborne medicine, safer bridges."

13 Jun. 2018. **IEEE**. "A Study of Orange Peels Yields Useful Engineering Knowledge" Amy Born.

12 Jun. 2018. **Reach MD**. "Orange peels may hold secret to airborne medicine, safer bridges."

12 Jun. 2018. **Healthworld**. "An 'orange twist' for airborne medicine."

12 Jun. 2018. **UPI**. "Science of squeezed oranges may help detection of failing bridges."

12 Jun. 2018. **R&D Magazine**. "Orange peels may hold secret to airborne medicine."

12 Jun. 2018. **The Health Site**. "An 'orange twist' for airborne medicine."

12 Jun. 2018. **World News (wn.com)**. "Orange peels could be key to delivering airborne medicine."

11 Jun. 2018. **Techsite**. "Orange peels may hold secret to airborne medicine, safer bridges" Paul Cork.

11 Jun. 2018. **Science Daily**. "Orange peels may hold secret to airborne medicine, safer bridges."

11 Jun. 2018. **TechXplore**. "Orange peels may hold secret to airborne medicine, safer bridges."

11 Jun. 2018. **Science Codex**. "Orange peels may hold secret to airborne medicine, safer bridges."

11 Jun. 2018. **Medicine News Line**. "Orange peels may hold secret to airborne medicine, safer bridges."

14 Nov. 2017. **Newswise**. "Bursting Citrus Peel Oil Glands Inspire New Approach for Microjetting Fluids."

17 Jan. 2017. **Quartz**. "Scientists shot footage of exploding citrus oils accelerating 1,000 times faster than a space rocket." Hannah Yi.

6 Jan. 2017. **Science Magazine**. "This video reveals why there's no clean way to peel an orange." Elizabeth Pennisi.

INTERNATIONAL ARTICLES

13 Jun. 2018. **De Ingenieur** (the Netherlands). "Sinaasappelschil inspireert ingenieurs."

12 Jun. 2018. **Nachrichten Welt** (Germany). "Die Wissenschaft der gepressten Orangen kann helfen, das Versagen zu erkennen BrÃŒcken."

12 Jun. 2018. **Terra Daily** (Australia). "Science of squeezed oranges may help detection of failing bridges" Brooks Hays.

12 Jun. 2018. **One News Page** (Australia). "Orange peels may hold secret to airborne medicine, safer bridges."

12 Jun. 2018. **Times Now News** (India). "Does orange peels hold the secret to airborne medicine?"

12 Jun. 2018. **The Siasat Daily** (India). "An 'orange twist' for airborne medicine."

MOSQUITOES

MAGAZINE ARTICLES

April 2013 issue. **National Geographic**. "Aerial Assaults."

TV AND RADIO

April 2016. De Kennis Van Nu. I interviewed for Dutch National Television who featured my voice while playing my high-speed footages of mosquitoes.

2014. **BBC's Wonders of the Monsoon**. I assisted with filming mosquitoes for an episode on rain with the same organization responsible for Planet Earth, Frozen Planet, and Life. I appear in the "behind the scenes" portion of episode 2.

22 August 2012. **Connecticut Public Radio**, Where We Live Morning Edition with Tucker Ives. 20-minute segment on mosquitoes.

24 June 2012. **National Academy of Engineering** with Randy Atkins. 1-minute segment on mosquitoes

11 June 2012. **CBS San Fransisco, KCBS** with with Stan Bunger and Susan Leigh Taylor, 5-minunte segment on mosquitoes.

8 June 2012. **RTE Radio** (Ireland) with Katriona McFadden. 16-minute segment on mosquitoes.

8 June 2012. **CBC North Radio - Yellowknife** with Joslyn Oosenbrug. "Mosquito vs. Raindrop." 6-minute segment

5 June 2012. **Westdeutscher Rundfunk and Magazine "Leonardo"** with Rainer Langen. 5-minute segment on mosquitoes.

5 June 2012. **NPR**. 3 minute radio segment on mosquitoes.

4 June 2012. **BBC Radio**. 5-minute segment on mosquitoes.

4 June 2012. **Fox News** with Alec Liu on mosquitoes.

6 October 2011. **Weather Channel**. Live interview on "Your Weather Today" on mosquitoes.

DOMESTIC ARTICLES

18 June 2012. The Washington Post. "Raindrops don't swat down mosquitoes, researchers find." Michael Balter and Science Now.

17 June 2012. **The Charlotte Observer**. "Do raindrops crush mosquitoes? Think again." Michael Balter.

16 June 2012. **The Citizen**. "Study on mosquitoes could change the future of robotics."

8 June 2012. **Science AAAS**. "Raindrops don't swat down mosquitoes." Michael Balter.

6 June 2012. **International Business Times**. "Mosquito vs. Raindrop: How the tiny pests survive head-on collisions." Roxanne Palmer.

5 June 2012. **Daily Mail**. "Video shows off how a mosquito stays in the air

5 June 2012. **NPR**. "Splish splat? Why raindrops don't kill mosquitoes." Richard Harris.

5 June 2012. **Nature**. "Mosquitoes don't let the rain get them down." Helen Thompson.

5 June 2012. **New York Times**. "For mosquitoes, a hard rain isn't a flight risk." Sindya Bhanco.

4 June 2012. **The Christian Science Monitor**. "How military might benefit from study of hard-to-kill mosquitoes." Pete Spotts.

4 June 2012. **Yahoo News & Science News**. "How a mosquito survives a raindrop hit." Susan Milius. LiveScience. "How tiny mosquitoes survive raindrops' blow." Stephanie Pappas.

4 June 2012. **Fox News**. "Why raindrops don't kill mosquitoes."

4 June 2012. **Scientific American**. "How the mosquito survives collisions with raindrops." Eric Olsen.

4 June 2012. **USA Today**. "How do mosquitoes survive collisions with raindrops?" Doyle Rice.

4 June 2012. **Los Angeles Times**. "Why don't mosquitoes die in the rain? They're too small." Thomas Maugh.

14 March 2012. **Discover Magazine**. "How mosquitoes survive a downpour." Elezabeth Svoboda.

21 October 2011. **New Scientist**. "Mosquito vs. raindrop match: video settles urban myth." Gareth Morgan.

INTERNATIONAL ARTICLES

16 June 2012. **Le Monde** (France). "Pourquoi les gouttes de pluie n'ecrasent pas le moustique." Marc Gozlan.

5 June 2012. **Apple Daily** (Taiwan). "Scientists reveal the secret of mosquito survival in the rain."

4 June 2012. **BBC Nature** (UK). "How tiny insects survive the rain." Victoria Gill.

30 November 2010. **Spektrum** (Germany). "Perfekt geschüttelt."

Austrian Broadcasting Corporation (Austria). Robert Czepel on mosquitoes.

Ciência Hoje das Crianças (Brazil). Fernanda Turino on mosquitoes.

Der Spiegel Magazine (Germany). Jörg Blech. **West German Broadcasting Station, WDR** (Germany). Monika Kunze

La Razon (Spain). A Spanish national newspaper. Belen Tobalina.

WET DOG SHAKE

MAGAZINE ARTICLES

September 2011 issue. **National Geographic**. "Shake it off." Hannah Bloch.

July 2011 issue. **Wired**. "Whip my hair." Steven Leckart.

March 2011 issue. **Popular Mechanics**. "Secrets of a dry dog." Kathryn Kennedy.

TV AND RADIO

April 2016. De Kennis Van Nu. I interviewed for Dutch National Television who featured my voice while playing my high-speed footages of dogs.

6 December 2012. **Inside Science TV of AIP**. 2-minute video segment on wet-dog shake.

17 August 2012. **CNN**. 2-minute video segment on wet-dog shake.

23 January 2012. **Discovery Channel Canada**. 5-minute segment on "Daily Planet" about wet-dog shake.

23 October 2010. **Good Morning America**. "The Wet Dog Shake: Scientists Uncover Secret Formula."

26 October 2010. **Discovery Channel Canada**. 2-minute segment on wet-dog shake for "Super Slo-Mo Tuesday."

22 October 2010. **NPR Science Friday**. 3.5-minute radio segment, All Things Considered on wet-dog shake.

DOMESTIC ARTICLES

28 December 2012. **EarthSky**. "How fast can a wet dog shake dry?"

15 August 2012. **Daily Mail**. "How future Mars Rovers could learn a thing or two from wet dogs about shedding dust." Damien Gayle.

15 August 2012. **Nature**. "Scientist do the wet-dog shake." Kathryn Lougheed.

14 August 2012. **MSNBC**. "Your dog's no dummy about shaking himself dry." Stephanie Pappas.

12 November 2010. **Discovery News**. "The wet dog shake: physics revealed." Jennifer Viegas.

3 November 2010. **Gizmag**. "Scientists shake up fluid dynamics of wet dogs." Grant Banks.

22 October 2010. **Science News**. "Doing the wet-dog wiggle." Alexandra Witze.

22 October 2010. **ABC News**. "The wet dog shake: scientists uncover secret." Ki Mae Heussner.

21 October 2010. **Wired UK**. "Physics of wet dogs shake out in high-speed videos." Duncan Geere.

INTERNATIONAL ARTICLES

31 December 2013. **iDNES** (Czech Republic). "Jak se klepe pes? Záleží na polomru." Dana Mentzlova

24 August 2012. **7 Days** (Netherlands). "Superschuddersen natte kangoeroes." Door Sytse Wilman.

22 August 2012. **The Reflection** (Germany). "Trocken ohne Handtuch."

9 August 2012. **Winnipeg Free Press** (Canada). "Wet dog teaching scientists new tricks." Faye Flam.

13 November 2010. **Computerra** (Russia). "How do dogs shake off?" Dmitry Tselikov.

Ud & Se (Denmark). Kristoffer Lottrup.

Tiede (Finland). Finnish popular science magazine. Mikko Puttonen.

Science et Vie (France). Audrey Dufour.

Biofutur (France). Safi Douhi. **Naturwissenschaftliche Rundschau** (Germany). Klaus Rehfeld

Stern (Germany). Astrid Viciano.