HULL, Michael M.

Current Contact Information

Austrian Educational Competence Centre Physics
University of Vienna (**UV**)
Porzellangasse 4
A-1090 Wien, Austria
michael.malvern.hull@univie.ac.at
https://aeccp.univie.ac.at/ueber-uns/team/universitaetsassistent-innen/user/hullm46/inum/1333/backpid/58120/

Education

2013	Ph.D.	University of Maryland, College Park (**UMD**). Physics.
2007	B.S.	University of Illinois at Urbana-Champaign (**UIUC**). Nuclear, Plasma and Radiological Engineering (**NPRE**). Chancellor's Scholar. James Scholar.

Teaching Experience

- *Instructor for seminar on reformed physics curricula,* UV; 2018 - present
  for three semesters, have introduced a total of 51 pre-service high school physics teachers (**PSTs**) to various reformed physics curricula that they can use in their future high schools. PSTs implement the curriculum in class as micro-teaching and also with local high school students.

- *Facilitator for Conceptual Lab*, UV; 2017 - 2019
  for four semesters, aided a total of 90 PSTs in constructing hands-on learning activities for their future students.

- *Instructor for workshop on background radiation*, Kyoto, Japan; Nov. 2019
  led a four-hour instructional workshop regarding sources and shielding of background ionizing radiation for 1. undergraduate students at Kyoto University majoring in physical science (once in Japanese, twice in English, totaling 15 students) and 2. highschool students at Kyoto International University Academy (in English, 18 students)

- *Professor for applied statics and dynamics for pre-engineers*, Wayne State College (**WSC**); led a directed study with 4 students interested in becoming engineers 2016 - 2017

- *Professor for introduction to engineering for pre-engineers*, WSC; Fall, 2015
  introduced 8 students to the field of engineering, including engineering ethics, professional societies, and fundamental skills

- *Professor for introductory algebra-based mechanics*, WSC; Fall, 2015
  taught 29 students

- *Professor for environmental physical science for non-science majors, WSC;* 2015 - 2017
  assisted 200 students (divided across three sections each semester for four semesters) in accruing and organizing the knowledge and developing the writing and speaking abilities necessary to contribute to discussions about controversial environmental issues in society. The overarching issue and the original title of the course is "How to Power the Earth". Students utilize hands-on laboratory experiments as well as small-group presentations. Lectures are interspersed with multiple-choice questions where every student must answer with flashcards.

- *Professor for conceptual quantum mechanics class for non-science majors, WSC;* Spring, 2015
  taught 47 students (divided across three sections) about wave-particle duality, the probabilistic nature of reality, and other core quantum mechanical principles via small-group labs and guided worksheets as well as lectures interspersed with multiple-choice questions where every student must answer with flashcards.

- *Professor for introductory mechanics class for non-science majors, WSC;* Fall, 2014
  guided 55 students (divided across three sections) to an understanding of "why and how things move" via small-group lab and problem-based learning as well as lectures interspersed with multiple-choice questions where every student must answer with flashcards.

- *Professor for introductory electromagnetism for non-physics majors*, Georgetown University (**GU**)**;** taught ~150 students, most of whom are pre-med. Spring, 2014

- *Professor for inquiry-based introductory physics class for non-science majors,* GU; led 27 students through explorations of electric circuits, buoyancy, and heat based upon observations of student-designed experiments and small group discussions of the implications of those observations. Spring, 2013

- *TA Training Facilitator for introductory mechanics and introductory electromagnetism for non-physics majors*, GU; led TA's in discussing challenges from the week and deciding how to structure the following week's lesson. 2012 - 2014

- *Tutorial Facilitator*, GU; taught introductory mechanics (for physics majors) using Tutorials in Introductory Physics. Fall, 2012

- *Teaching Assistant (**TA**),* UMD; taught introductory mechanics (for engineering majors) and electrodynamics & light (for engineering majors). Taught introductory mechanics (for life-science majors) that used Open Source Tutorials (**OSTs**) four semesters. 2008 - 2012

- *TA Training Facilitator for OSTs*, Tokyo Gakugei University (**TGU**) and UMD; explained nuances of the reformed physics curriculum developed by the Physics Education Research Group (**PERG**) at UMD and led TA's in discussing how they would carry out that week's lesson. 2010 - 2011

- *English Conversation Teacher*, AEON Amity in Okazaki, Japan; taught mostly elementary school and junior high school students, but also taught babies and adults. Taught beginning and bilingual students. 2007 - 2008

Research Experience

Investigating Student Reasoning about Radioactivity: Randomness and Emergent Properties (Principal Investigator), UV — 2018 - present

- Interview high school students regarding their reasoning about radioactivity and probability for an upcoming publication
- Collaborate with a graduate student at CERN and a senior researcher at UV on a literature review that is under review
- Applied to FWF for 192,590 Euros and waiting for their response

Assessing the Accuracy of the Force Concept Inventory (FCI) – PI Junichiro Yasuda (Yamagata University) — 2015 - present

- Attend biweekly group meetings via Skype
- Offer suggestions for content and English proof-reading for papers being written
- Administered modified FCI to students at WSC for international comparison

Evaluating Tutorials for the Matter and Interactions Curriculum (Principal Investigator), GU — 2012 - 2016

- Awarded $1000 New Initiative Grant by WSC to present in Japan
- Awarded $760 grant by GU's Center for New Designs in Learning and Scholarship.
- Interviewed first-year physics major students involved in the Matter and Interactions course to probe their attitudes about the course, how difficult it was to adjust to the new pedagogy, and to what degree Tutorials in Introductory Physics assisted with that adjustment. Interviews are one-on-one and last about an hour each.
- Mentored a senior undergraduate student in transcription and analysis techniques of the video-recorded interviews.

The Role of Japanese Primary Schooling on Adaptation to OSTs – PIs Edward Redish and Andrew Elby, UMD — 2010 - 2012

- Assisted in translating OSTs into Japanese with Professor Haruko Uematsu for use at TGU and later at Meijo University in Nagoya.
- Videotaped and took field notes of students in the new OSTs course at TGU (weekly, during the spring semester of 2011).
- Interviewed (in Japanese) 28 students in the class to probe their attitudes about the new course, what they think the nature of physics is, what their primary schools were like, and to observe how they approached a few physics problems. Interviews were one-on-one and lasted about an hour each.
- Conducted video analysis of clips, both of students working on OSTs and in interviews, and selected appropriate clips for weekly meetings with Professor Hideo Nitta at TGU.
- Conducted video analysis to ascertain the effectiveness of the OSTs curriculum in making TGU student attitudes towards physics more expert-like and to what degree primary school experiences facilitated that effect.

Engineering Education (Subgroup of PERG) – PI Andrew Elby 2008 - 2012

- Conducted hour-long one-on-one interviews with undergraduate engineering students. Asked about their current physics classes and observed as they solved a few physics problems.
- Analyzed videos taken from interviews and discussion sessions of reformed physics classes to identify how and when students make sense of math that appears in the context of physics.
- Analyzed videos taken from discussion sessions of traditional upper-level engineering courses to observe if students who had previously taken the reformed physics courses had a greater tendency to make sense of the mathematics, indicating the effectiveness of the reformed physics curriculum.
- Attended weekly meetings where researchers showed video data from interviews and science classrooms. Provided data interpretation and suggestions to peers.

Army Corps of Engineers ERDC-CERL Lab - PI Charles Marsh 2006 - 2007

- Researched and ran experiments on solubility and conductivity enhancement of nanoparticles and nanotubes.
- Designed theoretical designs for a ferroelectric–source wake-field accelerator and initiated evaluations of device with theory learned in plasma physics and electromagnetism courses.

Argonne National Laboratory - PI Nachappa Gopalsami Summer, 2005

- Researched and developed methods of using millimeter wavelength RADAR for the detection of trace radioactive substances.
- Designed and constructed an air tight chamber, created supersaturation humidities, and analyzed experimental results.

UIUC Reactor Physics Group – PI Barclay Jones 2004-2005

- Tested Fortran code to determine its accuracy in predicting reactor boron coolant crud buildup and subsequent impact.
- Delegated tasks and led two less-experienced students in the second semester.

Other Academic Experience

Academic Advisor, UV 2019 - present

- Advise 2 graduate students working towards a MS degree in physics education research

Academic Advisor, WSC 2015 - 2018

- Advised 8 undergraduate students in pre-engineering
- Was part of an effort to create a firmer connection between WSC and the University of Lincoln (UNL) such that pre-engineering students might have a smoother transition to transferring credits to UNL for obtaining their degree.

Programmatic Assessment of Whole Curriculum for Physics Majors, GU 2013 – 2014

- Awarded $2500 grant by GU's Center for New Designs in Learning and Scholarship.
- Interviewed 12 alumni from the physics department to ask about their experiences as an undergraduate, what challenges they faced when they went on to graduate school or work, and what suggestions they would make to improve the physics curriculum for majors.
- Revised and administered senior survey to graduating seniors asking questions similar to what was asked in alumni interviews.
- Synthesized results from these data sources to present concrete suggestions for the department.
- Collected and organized data on professional development and career trajectory of alumni.

ITEL Online Learning Modules, GU 2013 - 2014

- Coordinated between physics faculty and campus technology experts to determine the most appropriate online platform (edX, OLI, Blackboard, etc.) for these modules.
- Designed online learning modules to be completed by students on an as-needed basis (determined by score on a pre-test). Each module covers a specific topic, like complex numbers, and is to be used in any course that requires students to enter proficient in the topic.

Curriculum Development for Introductory Mechanics for Pre-med Students, GU 2012 - 2013

- Administered surveys on conceptual understanding of Newtonian mechanics (FCI) and on attitude towards physics and physics learning (MPEX-II). Administered survey on satisfaction and perception of usefulness of the course and of various course components. (Fall, 2012)
- Collaborated with course professor John Currie to introduce and adapt PER-based curriculum and pedagogy, such as Peer Instruction and Tutorials for use in the course fall 2013.
- Administered FCI and MPEX-II, fall 2013, and compared pre/post course gains to those of fall 2012. Evaluated efficacy of new curriculum also by looking for differences in student responses to the satisfaction/ usefulness survey.

Consultant on implementation of reformed physics curriculum, Kochi University of Technology May, 2011

- Observed Professor Michi Ishimoto's classes on introductory mechanics and astronomy.
- Suggested and discussed ideas to enhance student learning, both in person and by e-mail correspondence.

Peer-Reviewed Publications

- Hull, M.M. & Hopf, M. (2020). Student understanding of emergent aspects of radioactivity *Under review at Physical Review – Physics Education Research.*
- Hull, M.M. & Uematsu, H. (2020). A survey to measure perceived agency of teachers. *Under review at International Journal of Physics and Chemistry Education.*
- Hull, M.M., Jansky, A., & Hopf, M. (2020). Probability-related naïve ideas across physics topics. *Under review at Studies in Science Education.*
- Hull, M. M., Spitzer, P., & Hopf, M. (2020). Facts about Plastics and the Environment that Every Physics Teacher Should Know. *The Physics Teacher*. Vol. 58(2)
- Hull, M.M., Vormayr, K., & Uematsu, H. (2019). Validation of a survey to measure pre-service teachers' sense of agency. Submitted to GIREP-ICPE-EPEC-MPTL 2019.
- Hull, M.M. & Uematsu, H. (2018). Development of preservice teachers' sense of agency. To be published in GIREP-MPTL 2018 Proceedings (Selected Paper)
- Yasuda, J., Mae, N., Hull, M.M., & Taniguchi, M. (2018). Analyzing the measurement error from false positives in the Force Concept Inventory. GIREP-MPTL 2018 Proceedings
- Yasuda, J., Mae, N., Hull, M. M., & Taniguchi, M. (2018). Analyzing false positives of four questions in the Force Concept Inventory. *Physical Review Special Topic - Physics Education Research*. Vol. 14.
- Ogawara, Y., & Hull, M. M. (2018). Two Balls' Collision of Mass Ratio 3: 1. *The Physics Teacher*. Vol. 56.
- Hull, M. M., Yasuda, J., Taniguchi, M., & Mae, N. (2017). Towards quantification of the FCI's validity: the effect of false positives. 2017 PERC Proceedings.
- Hull, M.M., Lindsey, B.A, Archambault, M., Davey, K., Liu, A.Y. (2016) Unexpected attitudinal growth in a course combining reformed curricula. *Physical Review Special Topics - Physics Education Research*. Vol. 12.
- Hull, M. M. (2013). Do students have cultural scripts? Results from the first implementation of open source tutorials in Japan. *PhD Thesis, University of Maryland, College Park.*
- Hull, M.M., & Elby, A. (2013). A conceptual physics class where students found meaning in calculations. AIP Conference Proceedings. Vol. 1513.
- Hull, M.M., Kuo, E., Gupta, A., & Elby, A. (2013) Problem-solving rubrics revisited: Attending to the blending of informal conceptual and formal mathematical reasoning. *Physical Review Special Topics - Physics Education Research*. Vol. 9.
- Kuo, E., Hull, M.M., Gupta, A., & Elby, A. (2013). How students blend conceptual and formal mathematical reasoning in solving physics problems. *Science Education.* Vol. 97.

Other Publications and Presentations

- Hull, M.M., (2019, Sept.). Emergent Aspects of Radioactivity: Creation of a Survey on Half-life. *Poster presented at 2019 GDCP.*
- Hull, M.M., (2019). Emergent Aspects of Radioactivity: Creation of a Survey on Half-life. Submitted to 2019 GDCP Proceedings.

- Hull, M.M., Vormayr, K., & Uematsu, H. (2019, July). Validation of a survey to measure pre-service teachers' sense of agency. *Contributed Talk given at GIREP-ICPE-EPEC-MPTL 2019.*
- Hull, M. M. & Nakamura, T. (2019, Sept.). Understanding Half-Life as Emergent. 2018 GDCP Proceedings.
- Hull, M.M. & Uematsu, H. (2018, July). Development of preservice teachers' sense of agency. *Contributed talk given at GIREP-MPTL 2018.*
- Yasuda, J., Mae, N., Hull, M.M., & Taniguchi, M. (2018, July). Analyzing the measurement error from false positives in the Force Concept Inventory. *Contributed talk given at GIREP-MPTL 2018.*
- Hull, M. M. & Nakamura, T. (2018, Sept. 20). Understanding Half-Life as Emergent. *Contributed Talk given at 2018 GDCP.*
- Matsushita, M., Hull, M. M., & Nakamura, T. (2018, Dec. 8). Recognition of randomness in radiation instruction utilizing a cloud chamber. *Contributed Talk given at the Society of Japan Science Teaching (SJST).*
- Hull, M.M., Yasuda, J., Taniguchi, M., & Mae, N. (2017, July 25). Estimating Error from False Positives of the Force Concept Inventory. *Contributed Talk given at 2017 Summer Meeting of the American Association of Physics Teachers.*
- Hull, M.M., Yasuda, J., Taniguchi, M., & Mae, N. (2017, July). Towards quantification of the FCI's validity: the effect of false positives. *Contributed Poster presented at the 2017 Physics Education Research Conference.*
- Hull, M.M. (2016, April 22). Using assessments based upon physics education research (PER) to inform curriculum design. *Talk given at 126th Annual Meeting of Nebraska Academy of Sciences at Nebraska Wesleyan University.*
- Hull, M.M., Lindsey, B.A, Archambault, M., Davey, K., Liu, A.Y. (2015, August 8). Unexpected student attitudinal change in a class with a curriculum merging TIPs and M&I (Japanese). *Poster presented at 32nd Physics Education Research Conference of the Physics Education Society of Japan at Kyushu University.*
- Hull, M.M., Lindsey, B.A, Archambault, M., Davey, K., Liu, A.Y. (2015, August 8). Student epistemological growth seen after taking a course merging TIPs and M&I (Japanese). *Talk given at 32nd Physics Education Research Conference of the Physics Education Society of Japan at Kyushu University.*
- Hull, M.M., Lindsey, B.A, Archambault, M., Davey, K., Liu, A.Y. (2015, August 4). Development of physics attitudes in a course combining curriculum based on physics education research (Japanese). *Talk given at Seminar Co-sponsored by Gakugei Physics and the Physics Suite Study Group at Tokyo Gakugei University.*
- Hull, M.M. (2015, August 3). Open Source Tutorials Workshop (Japanese). *Workshop facilitated at Seminar co-sponsored by Gakugei Physics and the Physics Suite Study Group at Tokyo Gakugei University.*
- Hull, M.M. (2013, January 13). Comparing classrooms in terms of underlying mechanisms for learning: the case study of Open Source Tutorials at Tokyo Gakugei University (Japanese). *Talk given at Rika wo Dou Oshieruka 2 Symposium at Tokai University.*
- Hull, M.M. (2012). To progress in an interactive physics class without experiencing culture shock. (Japanese) *Physics Education in University.* Vol. 18.

- Hull, M.M. & Elby, A. (2012, July 30). How Tadao avoided the "culture shock" of reformed physics instruction. *Contributed Talk given at 2012 Summer Meeting of the American Association of Physics Teachers.*
- Hull, M.M. & Elby, A. (2012, July). A conceptual physics class where students found meaning in calculations. *Contributed Poster presented at the 2012 Physics Education Research Conference.*
- Uematsu, H., Hull, M., & Nitta, H. (2011, September 23). Tutorial in Tokyo Gakugei University as an interactive physics class. (Japanese) *Talk given at Physical Society of Japan Meeting at Toyama University.*
- Hull, M.M, Elby, A., Redish E.F., Nitta, H. (2011, July 29 and August 6). Why was Tutorial more effective at Gakugei University than I expected? (Japanese) *Talk given at Tokyo Gakugei University and then at Special Seminar of the Physics Suite(PS) Study Group at the high school attached to Tsukuba University.*
- Hull, M.M, Elby, A., Redish E.F., Nitta, H. (2011, July 23). Why Tutorial was more effective at Gakugei University than I expected. (English) *Talk given at Meeting of the Young Science Education Researchers at the Institute of Technology, Center of Campus Innovation, Tokyo.*
- Kuo, E., Hull, M., & Gupta, A. (June, 2011). Linking the dynamics of student reasoning to epistemology. *Contributed Talk given at Jean Piaget Society Annual Meeting in Berkeley, CA.*
- Hull, M.M. (2011, March). Open Source Tutorial: Why in the world are we using this? (Japanese) *Talk given to new Open Source Tutorial TA's at Tokyo Gakugei University.*
- Kuo, E., Hull, M., Elby, A., & Gupta, A. (2011). Analyzing interviews suggests patterns of reasoning with math in physics. *Invited Poster presented at FFPER 2011 in Bar Harbor, ME.*
- Kuo, E., Hull, M., Elby, A., & Gupta, A. (2010). Toward expert problem solving: blending conceptual and symbolic reasoning. *Contributed Poster presented at the 2010 Conference on Transforming Research in Undergraduate STEM Education (TRUSE) in Orono, ME.*
- Hull, M.M., Kuo, E., Gupta, A., & Elby, A. (2010, February 16). I'm doing what my teacher says, why aren't I expert-like? *Contributed Talk given at 2010 Winter Meeting of the American Association of Physics Teachers.*
- Kuo, E., Hull, M.M., Gupta, A., and Elby, A. (2010, February 16). Explaining student expertise with mathematical sense-making. *Contributed Talk given at 2010 Winter Meeting of the American Association of Physics Teachers.*
- Hull, M.M., Kuo, E., Gupta, A., & Elby, A. (2009, July). Undergraduate engineers' sense-making of math. *Contributed Poster presented at the 2009 Physics Education Research Conference.*
- Franks, R., Wen, J-G, Alvarado, J., Costanzo, S., Stynoski, P., Hull, M., Jones, B., & Marsh, C. (2007, June 19-22). Importance of novel size characterization techniques for nanofluids. *The Physical Electronics Conference 2007, 67th Annual Meeting, University of Illinois Material Research Laboratory, Urbana-Champaign, IL.*
- Marsh, C., Masters, B., Sander, J., Houlahan, T., Hull, M.M., Eden, G., Park, S., Verdeyen, J., & Weissman, M. (2008, September). Generation of ultra-high current densities by electron emission from ferroelectric materials. *Nuclear, Plasma, and Radiological Engineering 50th Anniversary Celebration.*
- Masters, B., Kristoff, J.S., Houlahan, T., Hull, M.M., Marsh, C., Park, S., & Eden, G. (2008, November). Degradation study of lead zirconate titanate based ferroelectric plasma sources. *Talk given at US Army Corps of Engineers Research and Development Conference in Memphis, TN.*

Honors and Awards

- Mobility Fellowship, University of Vienna, awarded to finance three months of collaborative research in Kyoto Japan, 2019
- Finalist in Physics Education Research Conference (PERC) Proceedings Paper Award Competition, 2012.
- Graduate Student Travel Award for The Conference on Transforming Research on Undergraduate STEM Education, Maine, June 2010.
- UIUC's NPRE Outstanding Undergraduate Researcher Award, 2005.
- American Nuclear Society Scholarship recipient, 2006-2007.
- MUSC Nuclear Engineering Science Program Scholarship recipient, 2006-2007.
- National Academy for Nuclear Training Scholarship recipient, 2006-2007.
- Induction into engineering honorary Tau Beta Pi, 2003.
- UIUC Chancellor's Scholar (awarded to ~1% of university students), 2002-2007.
- UIUC Campus Honors Program summer travel award, 2006.
- James Scholar in Engineering College (~ 5% of engineering students meet requirements), 2002-2007.
- Induction into Golden Key and Phi Kappa Phi honor societies, 2002.
- Dean's list each semester of undergraduate school, 2002-2007.

Service

Event organizer, UV 2017 - present
- Helped to organize GDCP conference, which took place at UV in 2019
- Schedule and arrange travel plans for group retreats

Committee Member, WSC 2015 - 2017
- Chair of Library Committee
- Helped in choosing art to beautify campus
- Assisted in finding a new math faculty member and a new education faculty member

TEAMS (Tests of Engineering Aptitude, Mathematics, and Science) Coordinator, WSC 2016 - present
- Organize space, resources, and labor necessary for the competition

Science Bowl and Science Fair Volunteer, WSC 2015 - present
- Help train other volunteers and serve as moderator
- Judge poster presentations of middle and high school students

Webelos Woods Star Staff, Boy Scouts of America in Nebraska 2014 - present
- Perform and shar demonstrations illustrating various principles of physical science for scouts working towards obtaining the "Scientist" pin.

Green Team Member, Wayne, NE 2014 – present

- Volunteer at Electronics Recycling Day, directing traffic of people bringing in truckloads of old computers and televisions.
- Contributed suggestions at monthly meetings of how to improve the community by building awareness of environmental issues.

WSC Fred G. Dale Planetarium Representative, Strategic Air and Space Museum Dec. 6, 2014

- Performed and shared demonstrations illustrating how craters are formed and what causes the seasons for visiting children and adults.

Science Teacher, Sargent Bluff Middle School Field Trip Dec. 1, 2014

- In response to the middle school's request for a "Science Day" at WSC, worked with my colleagues to organize events and lessons for ~150 students.
- Facilitated the "Marshmallow Challenge" and gave a brief lecture on various issues related to teamwork in scientific research and development.

Maryland Day Physics Demonstrator, UMD April 27, 2013

- Manned a repeating demonstration of a pencil being shot out of a tube with and through a sheet of plywood with the tip intact, dramatically illustrating inertia.

Vacation Bible School Instructor, St. John's Lutheran Church in Riverdale, MD 2010 and 2013

- Through hands-on activities and reading from the Bible, taught core principles of Christianity to children in grades K-5.

Other International Experiences

- Participated in local Okazaki taiko group; performed in April Cherry Blossom Festival, 2007-2008.
- Visited research group at St. Petersburg State University to observe and to help build an experiment to study the interactions of hydrogen with steel, summer 2006.
- Volunteered as an English as a second language teacher for about ten students who consisted of both children and working adults at Kolbino Finnish Lutheran Church in Russia, July 2006.
- Studied abroad for the spring 2004 semester in Nagoya, Japan, and participated in the kyu-do- team and in Wandervogel, the mountaineering team.
- Volunteered as an assistant in English classes at various high and middle schools in Nagoya, Japan, summer of 2004.
- Visited Hungary, Italy, Russia, England, France, Germany, Japan, China, Grand Cayman Islands, and India for recreation.

References

Employer and division head (2017 - present)
HOPF, Professor Martin, Porzellangasse 4, 1090, Wien, Austria.
+43-1-4277-60330, martin.hopf@univie.ac.at

Former employer and department chair (2014 - 2017)
WORNER, Professor Tamara, Hagg-Sauer Hall 365, 1500 Birchmont Drive NE, Bemidji, MN 56601-2699.
(218) 755-2495, tamara.worner@bemidjistate.edu

Former employer and department chair (2013 - 2014)
LIU, Professor Amy, 546 Reiss Science Building, 37th and O St., N.W. Washington, DC 20007.
(202) 687-6583, liu@physics.georgetown.edu

Former PhD thesis advisor and research project primary investigator (2009 - 2012)
ELBY, Professor Andrew, 2226 Benjamin Building, University of Maryland, College Park, MD 20742.
(301) 405-8188, elby@umd.edu

Former academic advisor (2008 - 2012)
REDISH, Professor Edward, 1308 John S. Toll Physics Building, University of Maryland, College Park, MD 20742.
(301) 405-6120, redish@umd.edu

Research collaborator and instructor of OSTs at TGU (07/2010 – present)
UEMATSU, Professor Haruko, Tokyo Gakugei University, Nukuikitamachi, Koganeishi, Tokyo 184-8501, Japan.
+81 042-329-7480, uematsu@u-gakugei.ac.jp

Research collaborator on FCI project (07/2010 – present)
YASUDA, Dr. Junichiro, Yamagata University, Institute of Arts and Sciences, Yamagata, Yamagata 990-8560, Japan.
+81 052-838-2617, ysdjun16@kdw.kj.yamagata-u.ac.jp

Research collaborator at Kyoto University (10/2019 – present)
FUNAHASHI, Dr. Haruhiko, Kyoto University, Institute for Liberal Arts and Sciences, Sakyo-ku, 606-8501, Japan.
+81 075-753-2492, funahashi.haruhiko.3w@kyoto-u.ac.jp>

Former employer and collaborator in ITEL project (2012 - 2014)
VAN KEUREN, Professor Edward, 506 Reiss Science Building, 37th and O St., N.W. Washington, DC 20007.
(202) 687-5982, erv@georgetown.edu

Research collaborator at TGU (07/2010 – 2012)
NITTA, Professor Hideo, Tokyo Gakugei University, Nukuikitamachi, Koganeishi, Tokyo 184-8501, Japan.
hi_nitta@u-gakugei.ac.jp

Professor of physics course for which I was TA training facilitator (2012 – 2013)
CURRIE, Professor John F, 534 Reiss Science Building, 37th and O St., N.W. Washington, DC 20007.
(202) 687-3919, curriej@georgetown.edu

Former employer (01/2006-08/2007)
MARSH, Dr. Charles, Construction Engineering Research Laboratory, P.O. Box 9005, Champaign, IL 61826.
(217) 373-6764, Charles.P.Marsh@erdc.usace.army.mil

Former employer at Argonne National Laboratory (summer 2005)
GOPALSAMI, Dr. Nachappa, Bldg. 309, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439.
(630) 252-5925, gopalsami@anl.gov

Former academic advisor and employer at UIUC (09/2004 - 05/2005)
JONES, Dr. Barclay, 221 Nuclear Engineering Lab, 103 Goodwin, Urbana, IL 61801.
(217) 333-3535, bgjones@uiuc.edu