Nil Z. Gurel, Ph.D.

Postdoctoral Researcher, David Geffen School of Medicine at UCLA
✉: ngurel [at] mednet (dot) ucla (dot) edu; 🏠: nzgurel.com; U.S. Permanent Resident

Research Interests

• wearables • digital health • biomedical sensing • neuromodulation • medical devices

I am interested in the intersection of signal processing, machine learning, and instrumentation in the context of psychiatry and cardiology.

Educational Background

'16-'20 Ph.D. in Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA (GPA:4/4)
Minor in Biomedical Engineering
Dissertation: *Novel Technologies for the Diagnosis and Treatment of Posttraumatic Stress Disorder*
advisor : Omer T. Inan; committee : Omer T. Inan, J. Douglas Bremner, Robert Butera, Hua Wang, and Javier Hernandez

'14-'16 M.Sc. in Electrical and Computer Engineering, University of Maryland, College Park, MD
Thesis: *Frequency Domain Characterization of Optic Flow and Vision-Based Ocellar Sensing for Rotational Motion*
advisors : Timothy Horiuchi (UMD) and Sean Humbert (UC Boulder)
committee : Timothy Horiuchi, Robert W. Newcomb, and Pamela Abshire

'10-'14 B.Sc. in Electrical and Electronics Engineering, Bogazici University, Istanbul, TR (Dean's high honor list)

'12-'13 Exchange Studies in Electrical Engineering, University of Washington, Seattle, WA (Dean's high honor list)

Academic Appointments

Oct '20-Present Postdoctoral Researcher, David Geffen School of Medicine at UCLA, Los Angeles, CA
Neurocardiology Research Center of Excellence / Cardiac Arrhythmia Center
Primary mentor: Jeffrey L. Ardell

Honors, Awards & Fellowships

Research Awards

'19 Best Poster, 2nd Place, IEEE BHI
'18 Best Paper, 2nd Place, IEEE BSN
'18 Best Paper Finalist, IEEE EMBC
(One of the Top 15 papers per reviewer feedback)
'17 Best Poster, NextFlex Flexible Hybrid Electronics Workshop

Fellowships

'20-'21 National Library of Medicine Postdoctoral Fellowship, Columbia University (declined)
'15-'16 Teaching Assistant Training and Development Fellowship
'14-'15 Clark School of Engineering Distinguished Graduate Fellowship

Professional Awards

'21 Caltech Young Investigators Lecture Series
'19 Nexus NextProf Future Faculty Workshop Award
'18 Rising Stars in EECS
'18-'19 iREDEFINE ECE Professional Development Award

Conference Travel Awards

'16-'18 IEEE BSN-BHI'18, IEEE EMBC'18, Molecular Med Tri-Con'16

Publications

Journal articles

Manuscripts published

[J17] **NZ Gurel**, H Jung, MT Wittbrodt, SL Ladd, AJ Shah, V Vaccarino, JD Bremner, OT Inan, "Automatic Detection of Target Engagement in Transcutaneous Cervical Vagal Nerve Stimulation for Traumatic Stress Triggers", *IEEE Journal of Biomedical and Health Informatics (IEEE JBHI),* 24(7): 1917-1925, 2020 [DOI]

[J16] **NZ Gurel**, M Huang, MT Wittbrodt, H Jung, SL Ladd, MH Shandhi, YA Ko, L Shallenberger, JA Nye, BD Pearce, V Vaccarino, AJ Shah, JD Bremner, OT Inan, "Quantifying Acute Physiological Biomarkers of Transcutaneous Cervical Vagal Nerve Stimulation in the Context of Psychological Stress", *Brain Stimulation*, 13(1): 47-59, 2019 [DOI]

[J15] **NZ Gurel**, MT Wittbrodt, H Jung, MH Shandhi, EG Driggers, SL Ladd, M Huang, YA Ko, L Shallenberger, JA Nye, BD Pearce, V Vaccarino, AJ Shah, OT Inan, JD Bremner, "Transcutaneous Cervical Vagal Nerve Stimulation Reduces Sympathetic Responses to Stress in Posttraumatic Stress Disorder: A Double-Blind, Randomized, Sham Controlled Trial", *Neurobiology of Stress*, 13, 2020 [DOI]

[J14] **NZ Gurel***, Y Jiao*, MT Wittbrodt, YA Ko, A Hankus, SL Ladd, L Shallenberger, N Murrah, M Huang, A Haffer, J Alkhalaf, O Levantsevych, JA Nye, V Vaccarino, AJ Shah, OT Inan, JD Bremner, BD Pearce, "Effect of Transcutaneous Cervical Vagus Nerve Stimulation on the Pituitary Adenylate Cyclase-Activating Polypeptide (PACAP) Response to Stress: A Randomized, Sham Controlled, Double Blind Pilot Study", *Comprehensive Psychoneuroendocrinology*, 4, 2020 [DOI] [*co-first authors]

[J13] **NZ Gurel**, AM Carek, OT Inan, O Levantsevych, N Abdelhadi, M Hammadah, WT O'Neal, H Kelli, K Wilmot, L Ward, SD Rhodes, BD Pearce, PK Mehta, M Kutner, E Garcia, AA Quyyumi, P Raggi, JD Bremner, AJ Shah, "Comparison of Autonomic Stress Reactivity in Young Healthy versus Aging Subjects with Heart Disease", *PLOS ONE,* 14(5): e0216278, 2019 [DOI]

[J12] **NZ Gurel***, H Jung*, S Hersek, OT Inan, "Fusing Near-Infrared Spectroscopy with Wearable Hemodynamic Measurements Improves Classification of Mental Stress", *IEEE Sensors Journal,* 19(19): 8522-8531, 2018 [*co-first authors] [DOI]

[J11] MT Wittbrodt, **NZ Gurel**, JA Nye, SL Ladd, AJ Shah, MH Shandhi, M Huang, Z Alam, BD Pearce, N Murrah, YA Ko, L Shallenberger, V Vaccarino, OT Inan, JD Bremner, "Noninvasive Vagal Nerve Stimulation Decreases Brain Activity During Trauma Scripts", *Brain Stimulation,* 13(5): 1333-1348, 2020 [DOI]

[J10] AH Gazi, **NZ Gurel**, KL Scott, MT Wittbrodt, AJ Shah, V Vaccarino, JD Bremner, OT Inan,"Investigating Digital Cardiovascular Biomarker Responses to Transcutaneous Cervical Vagus Nerve Stimulation: State-Space Modeling, Prediction, and Simulation", *JMIR mHealth and uHealth*, 8(9):e20488, 2020 [DOI]

[J9] JD Bremner, **NZ Gurel**, Y Jiao, MT Wittbrodt, O Levantsevych, M Huang, H Jung, MH Shandhi, J Beckwith, I Herring, MH Rapaport, N Murrah, EG Driggers, YA Ko, J Alkhalaf, M Soudan, J Song, B Ko, L Shallenberger, A Hankus, JA Nye, J Park, V Vaccarino, AJ Shah, OT Inan, BD Pearce, "Transcutaneous Vagal Nerve Stimulation Blocks Stress-Induced Activation of Interleukin-6 and Interferon-γ in Posttraumatic Stress Disorder: A Double-Blind, Randomized, Sham-Controlled Trial", *Brain, Behavior, Immunity - Health*, 9, 2020 [DOI]

[J8] JD Bremner, **NZ Gurel**, MT Wittbrodt, MH Shandhi, MH Rapaport, JA Nye, BD Pearce, V Vaccarino, AJ Shah, J Park, M Bikson, OT Inan, "Application of Noninvasive Vagal Nerve Stimulation to Stress-Related Psychiatric Disorders", *Journal of Personalized Medicine*, 10(3): 119, 2020 [DOI]

[J7] AO Bicen, **NZ Gurel**, A Dorier, OT Inan, "Improved Pre-Ejection Period Estimation from Ballistocardiogram and Electrocardiogram Signals by Fusing Multiple Timing Interval Features", *IEEE Sensors Journal,* 17(13):4172-4180, 2017 [DOI]

[J6] JD Bremner, MT Wittbrodt, AJ Shah, BD Pearce, **NZ Gurel**, OT Inan, P Raggi, TT Lewis, AA Quyyumi, V Vaccarino"Confederates in the Attic: Posttraumatic Stress Disorder, Cardiovascular Disease, and the Return of Soldier's Heart", *The Journal of Nervous and Mental Disease,* 208(3): 171-180, 2019 [DOI]

Manuscripts under review

[J5] JD Bremner, MT Wittbrodt, **NZ Gurel**, MH Shandhi, AH Gazi, O Levantsevych, M Huang, J Beckwith, MH Rapaport, N Murrah, EG Driggers, YA Ko, J Alkhalaf, M Soudan, A Haffer, L Shallenberger, J Park, A Woodbury, PK Mehta, BD Pearce, V Vaccarino, AJ Shah, OT Inan, *under review,* 2021

[J4] **NZ Gurel**, J Hadaya, JL Ardell, *under review,* 2021

[J3] MT Wittbrodt, **NZ Gurel**, H Jung, MH Shandhi, V Vaccarino, AJ Shah, BD Pearce, JD Bremner, OT Inan, *minor revision,* 2021

[J2] SE Sheikh, **NZ Gurel**, AJ Shah, OT Inan, G Clifford, *under review,* 2021

Manuscripts in preparation

[J1] **NZ Gurel**, J Hernandez, AH Gazi, MT Wittbrodt, H Jung, V Vaccarino, AJ Shah, BD Pearce, JD Bremner, OT Inan, *in preparation,* 2021

Book chapters

[B3] **NZ Gurel**, J Hadaya, JL Ardell, *submitted*, 2021

[B2] MT Wittbrodt, **NZ Gurel**, OT Inan, PK Mehta, JD Bremner, "Application of Vagal Nerve Stimulation to Posttraumatic Stress Disorder", *submitted*, 2020

[B1] JD Bremner, MT Wittbrodt, **NZ Gurel**, MH Shandhi, AH Gazi, J Park, OT Inan,"Transcutaneous Vagal Nerve Stimulation in Trauma Spectrum Disorders", submitted, 2020.

Peer-reviewed conference proceedings, abstracts, live demos

[C12] **NZ Gurel***, AH Gazi*, KL Scott, MT Wittbrodt, AJ Shah, V Vaccarino, JD Bremner, OT Inan, "Timing Considerations for Noninvasive Vagal Nerve Stimulation in Clinical Studies", *American Medical Informatics Association Annual Symposium* (AMIA '19), Washington, DC, 2019 [oral, 10-pages, session offering MOC-II credit to practicing clinical informaticians, *co-first authors] [DOI]

[C11] **NZ Gurel**, MT Wittbrodt, AJ Shah, V Vaccarino, OT Inan, JD Bremner, "Noninvasive Vagal Nerve Stimulation Effects on Anger Response", *IEEE Conference on Biomedical Health Informatics* (IEEE BHI/BSN '19), Chicago, IL, 2019 [poster, 1-page] [PDF]

[C10] AH Gazi, **NZ Gurel**, KL Scott, MT Wittbrodt, AJ Shah, V Vaccarino, JD Bremner, OT Inan, "Preliminary Modeling of the Kinetics of Photoplethysmogram Changes Following Noninvasive Vagus Nerve Stimulation", *IEEE Conference on Biomedical Health Informatics* (IEEE BHI/BSN '19), Chicago, IL, 2019 [poster, 1-page] [PDF]
Runner-up Best Poster

[C9] Y Jiao, YA Ko, **NZ Gurel**, A Hankus, SL Ladd, MT Wittbrodt, L Shallenberger, N Murrah, M Huang, A Haffer, J Alkhalaf, H Jung, O Levantsevych, JA Nye, MH Shandhi, V Vaccarino, AJ Shah, OT Inan, JD Bremner, BD Pearce, "Levels of Pituitary Adenylate Cyclase-Activating Polypeptide (PACAP) in Posttraumatic Stress Disorder and Modulatory Effect of Noninvasive Cervical Vagus Nerve Stimulation", *Society for Neuroscience* (SfN '19), Chicago, IL, 2019 [poster, 1-page, abstract online]

[C8] **NZ Gurel**, MH Shandhi, JD Bremner, V Vaccarino, SL Ladd, L Shallenberger, AJ Shah, OT Inan, "Toward Closed-loop Transcutaneous Vagus Nerve Stimulation Using Peripheral Cardiovascular Physiological Biomarkers: A Proof-of-concept Study", *IEEE Conference on Wearable and Implantable Body Sensor Networks* (IEEE BHI/BSN '18), Las Vegas, NV, 2018 [oral, 4-pages, Top 3% among accepted papers] [DOI]
Runner-up Best Paper

[C7] **NZ Gurel**, H Jeong, HE Kloefkorn, S Hochman, OT Inan, "Unobtrusive Heartbeat Detection from Mice Using Sensors Embedded in the Nest", *IEEE Engineering in Medicine and Biology Conference* (IEEE EMBC '18), Honolulu,

HI, 2018
[oral, 4-pages, Top 15 among the accepted ∼1500 proceedings] [DOI]
Best Paper Finalist

[C6] **NZ Gurel***, D Ward*, FL Hammond, OT Inan, "Live Demonstration: A Soft Thermal Modulation System with Embedded Fluid Channels for Neuro-Vascular Assessment", *IEEE Biomedical Circuits and Systems Conference* (IEEE BioCAS '18), Cleveland, OH, 2018 [live demo, 1-page, *co-first authors] [DOI]

[C5] H Jeong, **NZ Gurel**, HE Kloefkorn, S Hochman, OT Inan, "Performance of Unobtrusive Detection of High Frequency Heart Rate Variability in Mice Using an Instrumented Nest", *IEEE Life Sciences Conference* (IEEE LSC '18), Montreal, Canada, 2018
[oral, 4-pages] [PDF]

[C4] D Ward*, **NZ Gurel***, OT Inan, FL Hammond, "A Soft Thermal Modulation and Physiological Sensing System for Neuro-Vascular Assessment", *IEEE Conference on Robotics and Biomimetics* (IEEE ROBIO '18), Kuala Lumpur, Malaysia, 2018
[oral, 8-pages, *co-first authors] [DOI]

[C3] **NZ Gurel**, H Jung, A Hankus, SL Ladd, MH Shandhi, M Huang, SD Rhodes, L Shallenberger, BD Pearce, AJ Shah, V Vaccarino, OT Inan, JD Bremner, "Toward Wearable Sensing Enabled Closed-Loop Noninvasive Vagus Nerve Stimulation: A Study of Real Time Physiological Biomarkers", *Neuromodulation Conference and North American Neuromodulation Society Meeting* (Neuromodec '18), New York, NY, 2018 [poster], *Brain Stimulation, 12(2), e13, 2019* [abstract] [DOI]

[C2] JD Bremner, **NZ Gurel**, MT Wittbrodt, JA Nye,Z Alam, I Herring, L Shallenberger, A Haffer, O Levantsevych, N Murrah, YA Ko, BD Pearce, MH Shandhi, AJ Shah, V Vaccarino, OT Inan, "Noninvasive Vagal Nerve Stimulation Paired with Stress Exposure in Posttraumatic Stress Disorder", *Brain Stimulation, 12(2), 438, 2019* [abstract] [DOI]

[C1] JD Bremner, MT Wittbrodt, **NZ Gurel**, JA Nye, Z Alam, V Vaccarino, SL Ladd, L Shallenberger, M Huang, YA Ko, BD Pearce, MH Shandhi, AJ Shah, OT Inan, "Brain Correlates of Noninvasive Vagal Nerve Stimulation in Stress", *Neuromodulation Conference and North American Neuromodulation Society Meeting* (Neuromodec '18), New York, NY, 2018 [poster], *Brain Stimulation, 12(2), pp. e3-e4, 2019* [abstract] [DOI]

Technical reports & posters

[T2] **NZ Gurel**, J Conroy, T Horiuchi, S Humbert, "Frequency Domain Characterization of Optic Flow and Vision-Based Ocellar Sensing for Rotational Motion", *US Army Research Laboratory ARL-TR-7974*, Adelphi, MD, 2017 [technical report, 60-pages] [PDF]

[T1] D Ward*, **NZ Gurel***, OT Inan, FL Hammond, "Soft, Fluidic Modulation of Skin Temperature", *NextFlex Flexible Hybrid Electronics Workshop*, Atlanta, GA, 2017 [*co-first authors]
Best Poster

Research Experience

'20- Postdoctoral Researcher, Neurocardiology Research Center of Excellence / Cardiac Arrhythmia Center
'16-'20 Ph.D. Student and Graduate Research Assistant, Inan Research Laboratory

Research on noninvasive wearable sensing and actuation applied to physiological monitoring and modulation. Received two paper awards, two poster awards, four professional awards, three conference travel awards for individual or combination of projects. Notable projects:

- Physiological biomarkers of cervical noninvasive vagal nerve stimulation in the context of acute stress
- Instrumented headband for mental stressor classification
- Soft thermal modulation system for neurovascular assessment
- Instrumented bed & kitchen scale for rodents

• Noninvasive autonomic nervous system quantification with microneurography & hypoglossal nerve stimulation

'15-'16 Graduate Research Assistant, Autonomous Vehicle Laboratory

• Bio-inspired sensing for micro-aerial vehicles: designed a multimodal system to quantify rotational motion based on optic flow (digital) and luminance-based ocellar (analog) sensing. Characterized both sensing modalities to compare for fast visual processing in response to sudden disturbances.

Teaching Experience

Fall '19 Guest Lecturer, *Biomedical Sensing Systems [ECE4781/8833]*, Georgia Institute of Technology

Conducted lectures on noninvasive peripheral stimulation and wearable sensing.

Spr '19 Guest Lecturer, *Biosystems Analysis [ECE4782/8834]*, Georgia Institute of Technology

Conducted hands-on lectures on feature extraction, feature engineering, dimensionality reduction, and machine learning.

Fall '14 Graduate Teaching Assistant, *Analog and Digital Electronics [ENEE303]*, University of Maryland

Prepared and lectured weekly recitations, quizzes, and office hours. Received teaching fellowship, evaluated per student feedback.

Proposal Development Experience

'17-'20 Assisted the development of the following successful proposals:

• NIH NIDA UG3/UH3 ("nVNS in Patients with Opioid Use Disorders", 2020-2025, UG3 Phase: $460k, UH3 Phase: $3.9M, PIs: JD Bremner, OT Inan)

• DARPA ElectRx ("Multi-Modal Sensing Enabled Closed-Loop tVNS for Musculoskeletal Injury and Disorders", 2019-2021, Phase 1: $694k, Phase 2: $577k, PIs: OT Inan, M Etemadi)

'16-'20 Prepared the following deliverables for the DARPA Targeted Neuroplasticity Training (TNT) Program: quarterly reports, six-week progress teleconference materials, and PI meeting materials. Attended conference calls for all progress materials for communication of research with program officers.

Media Coverage

Mar '21 [Turkish] Strong Women Talking, *Selin Arslantepe, Ajans Bizim*

Dec '20 Q & A: Fall 2020 ECE Graduates, *Ashlee Gardner, Georgia Tech*

May '20 [Turkish] COVID-19 Sonrasi Saglik Teknolojileri (Health Tech Post COVID-19), *Bahcesehir University Faculty of Medicine Conference Series,* attended as guest, streamed live.

Dec '19 ECEDHA and iREDEFINE: Bringing Together Academia and Industry, *Leslie Prives, IEEE Women in Engineering Magazine, 13(2): 28-33*

Aug '19 Gurel Chosen for NextProf Nexus Workshop, *Jackie Nemeth, Georgia Tech*

Dec '18 Three ECE Students Become Rising Stars in Academia, *Ashlee Gardner, Georgia Tech*

Jun '18 Gurel Invited to Rising Stars Workshop, Takes Part in iREDEFINE, *Jackie Nemeth, Georgia Tech*

Jun '18 Toward Wearable Sensing Enabled Closed-Loop Noninvasive Vagus Nerve Stimulation, *MIT EECS*

Mar '18 Gurel Receives Paper Prize at IEEE BSN Conference, *Jackie Nemeth, Georgia Tech*

Dec '17 Georgia Tech and NextFlex Team-Up to Make the Internet-of-Things More Flexible & Power Efficient, *Christa Ernst, GT Research Horizons*

Student Advising & Mentoring

'20 – Present — David Geffen School of Medicine at UCLA and Dalhousie University: Two Ph.D. students
- J. Odeh (Ph.D., Nursing, 2020-)
- K. Bindiganavile Sudarshan (Ph.D., Applied Mathematics and Neurocardiology, 2021-)

'17-'20 — Georgia Institute of Technology and Emory University: Five Ph.D. and two M.Sc. students
- S.E. Sheikh (Ph.D., ECE, 2019-2020) • Y. Jiao (M.Sc., Epidemiology, 2019-2020) • K. Scott (Ph.D., ECE, 2019)
- A. Gazi (Ph.D., ECE, 2018-2019) • B. Nevius (M.Sc., BME 2018-2019) • H. Jung (Ph.D., ECE, 2017-2018)
- D. Ward (M.Sc., MechE, 2017-2018, currently pursuing Ph.D.)

'15-'16 — University of Maryland: A team of 13 undergraduates with diverse backgrounds from Gemstone Honors Program with Robert W. Newcomb. The team completed a proof-of-concept prototype for stationless bikeshare for the campus.

Work Experience

'13-'14 — Research and Development Engineer, Techneon, Istanbul, TR

Sensor circuit design, board assembly test firmware, remote monitoring desktop application, electromagnetic compatibility support, CE certification documentation (93-42-EEC, EN60601-1, IEC 60601-2-24) for an infusion pump system.

Sum '12 — Intern (Defense Systems Technologies), Aselsan, Ankara, TR

Designed a controller area network-based communication interface and desktop application for guns used on field.

Sum '11 — Intern (Software Group), IBM Turkey, Istanbul, TR

Implemented customizations on Java-based IBM Maximo asset management software.

Professional Activities

Apr '20 — Session organizer, "Noninvasive Vagus Nerve Stimulation Applied to Stress Management, Opioid Withdrawal, and Neurocognitive Disorders" held at the NYC Neuromodulation 2020 Online Conference.

Apr '19 — Co-organizer, NSF/NIH Digital Clinical Trials Workshop: Creating a Vision for the Future held on the NIH campus, Bethesda, MD. (Brochure) (Day 1 VideoCast) (Day 2 VideoCast)

'15 – Present — Reviewer of the articles in the following journals and conferences:
- Brain Stimulation Journal (2020-Present)
- Journal of Applied Physiology (2020-Present)
- IEEE Journal of Biomedical Health Informatics (IEEE JBHI) (2016-Present)
- American Medical Informatics Association Annual Symposium (AMIA '19) (AMIA '20)
- IEEE Transactions on Electron Devices (IEEE T-ED) (2019)
- IEEE International Engineering in Medicine and Biology Conference (EMBC '19)
- IEEE International Conference on Biomedical Health Informatics (BHI '19)
- Computers in Biology and Medicine (2016-2019)
- ACM Transactions on Applied Perception (ACM TAP) (2017-2018)
- International Conference on Biological Information and Biomedical Engineering (BIBE '19)
- IEEE Transactions on Circuits and Systems II (IEEE TCAS-II) (2015-2017)
- IEEE International Symposium on Circuits and Systems (ISCAS '16)

Diversity & Outreach

Apr '21 Juror for the California State University Student Research Competition hosted by Cal Poly Pomona.

Nov '19 Reviewer for the Posters at the Georgia State Capitol showcase of research and creative projects by undergraduate students from universities in the state of Georgia. During the event, students present their projects to those responsible for crafting higher education policy in Georgia.

Aug '19 ECE Rush Volunteer: presented opportunities on research for bioengineering technical interest group for transfer students, undecided majors, ECE freshmen.

Jun '19 H.O.T. Days @ Georgia Tech Day Camp Lecturer: designed a wearable electronics module for high school students to instill interest in ECE. Lecturer of two hands-on modules for 39 high school students. Module includes basic circuit design, firmware programming, prototyping. (Week 1 Video) (Week 2 Video)

Invited Talks & Workshops

"Novel Technologies for the Diagnosis and Treatment of PTSD"

Apr '21 Caltech Young Investigators Lecture Series*

Oct '20 UCLA Cardiac Arrhythmia Center*

"Coping with Trauma: Noninvasive Vagal Nerve Stimulation for Acute Stress and Its Real Time Biomarkers in PTSD"

Apr '20 Stony Brook University, NY, Biomedical Informatics*

Mar '20 Cornell Tech and Cornell University, NY, Electrical and Computer Engineering

Mar '20 University of Maryland, College Park, MD, Electrical and Computer Engineering*

Nov '19 National Institutes of Mental Health, Bethesda, MD, Non-invasive Neuromodulation Unit

Fall '16 *Encouraging Critical Thinking in Classroom*
Workshop for graduate teaching assistants, University of Maryland

Spr '15 *Presentation and Instruction Techniques*
Workshop for graduate teaching assistants, University of Maryland

*Virtual due to COVID-19

References

Available upon request.

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