Society for the Study of Measurement (SSM)
Inaugural Conference
Agenda & Maps
July 27, 2024

Dates: August 4-August 8, 2024

Location: Berkeley Way West Building
University of California, Berkeley
2121 Berkeley Way West
Berkeley, CA 94720
USA

Rooms: 1st Floor: 1102, 1215
4th Floor: 4101, 4310, 4500

Pre-conference Workshop Day (4 August)

Note: All workshops are in-person

9:00-12:00 Workshop A, Room 4500
Measurement Across the Sciences Workshop
Luca Mari & Mark Wilson

9:00-1:00 Workshop C, Room 4310
Open Strategy Workshop: Developing AI-powered Futures for Learning & Work
Luciano Oviedo & Tiburon Batriedo

1:30-4:30 Workshop D, Room 4500
Learning Machines and Measurement-Related Issues Workshop
Alessandro Giordani, Luca Mari & Mark Wilson

2:30-4:30 Workshop E, Room 4101
ACER ConQuest Software Workshop
Perman Gochyyev

Day 1 (5 August)

7:45 Registration Desk is open on the ground floor of the BWW Building

8:15-8:45 Opening Session, Room 1102
Welcome: Michelle Young, Dean of the Berkeley School of Education

8:45-9:30 Invited Talk 1, Room 1102: Chair, Eran Tal
Patient Centered Measurement
Leah McClimans
University of South Carolina, USA

9:35-11:05 Session 1A & 1B
1A, Room 1102. Measurement and Data Science: Chair, Alessandro Giordani
Philosophical Challenges with Using Deep Learning to Measure Animal Behavior in Neuroscience
Nedah Nemati, Andrew Matheson
Columbia University, USA
Rethinking the Relationship Between Measurement and Simulation
Alessandro Giordani, Luca Mari
Università Cattolica del Sacro Cuore di Milano, Italy
Machine-Learning for Explanatory Educational Measurement: Combining the Power of Decision Trees and the Four-Building Blocks for Auto-Scoring
Yunting Liu, Alexis Ava Fernandez, Cindy Zhang, Yijun Xiang, Alexis Ava Fernandez, University of California, Berkeley, USA

1B, Room 1215. Educational and Psychological Measurement Applications, I: Chair, Yukie Toyama
When Knowledge Measures Need Epistemological Frameworks & How to Build Valid Knowledge Items: Insights from a Validation of Teachers' Propositional Knowledge of Dyslexia and Dyslexia Screening
Tyler Ogata, Jill Yochim
UC Berkeley, USA
Identification of Measurement Disturbances in Affective Item Types
Judy R. Wilkerson, W. Steve Lang
University of South Florida, USA
An Item Response Theory Analysis of The Implicit Theories of Intelligence Scale in Teachers of a Developing Country
Carmen Maura Taveras
Pontificia Universidad Católica de Chile, Chile

11:05-11:35 Morning Break (30 mins.) Coffee etc. in the Foyer

11:35-1:05 Sessions 2A & 2B
2A, Room 1102. Measurement Applications: Chair, Svetlana Beltyukova
Validation of a French-speaking Version of Motivated Strategies for Learning

Nadine Talbot
Université du Québec à Trois-Rivières, Canada

Validating the Construct Specification Equation and Gross Motor Unit as a Universal Measurement Scale and Standardized, Reproducible Unit for Gross Motor Development
Bryant Seamon, Cindy L. Sears, Emily Anderson, Craig A. Velozo
Medical University of South Carolina, USA

Rasch-Informed vs. Rasch-Based Objective Standard Setting: A Case Study of Designing and Validating an Assessment Tool to Measure Clinical Performance of Medical Students During their Clerkship Phase
Svetlana Beltyukova, Stephanie Mann, Rjat Kaul
The University of Toledo, USA

2B, Room 1215. Models in Measurement: Chair, Eunjung Myoung

Democratizing the Democratization of Measurement: From the Three Estates of Expertise to the Encounter of Values
Chris Borst
Dept. of Sociology, McGill University, Montreal, Canada

Phenomenological Measurement
Gabriel Siegel
Washington University, St. Louis, USA

A Keyword Network Analysis of Published Articles in the Journal of Educational Measurement From 1964 to 2024
Eunjung Myoung, Hyemin Park
Stanford University and University of California, Berkeley, USA

1:05-2:35 Lunch (on your own) and Posters: Ground Floor Foyer
History, Philosophy and Sociology of Measurement,
Chair: Alexander Blum

Defining the Theoretical and Empirical Domains of Structural Racism in American Schools
Norma Hancock, A. B. Fox, T. P. Hogan
MGH Institute of Health Professions, Boston, MA, USA

Communication of Measurement
Mona Wehming
Physikalisch-Technische Bundesanstalt (PTB), Berlin, Germany

Integrating Item Response Theory into Korea's CSAT: Challenges and Opportunities for Enhanced Educational Assessment
Hyemin Park, Eunjung Myoung
University of California, Berkeley, and Stanford University, CA, USA

Impact of Seasonality on Rasch Calibration and Equating
Chunyan Liu, Richard Feinberg, Raja Subhiyah
National Board of Medical Examiners, Philadelphia, PA, USA

An Interdisciplinary Approach to Measuring Well-Being in Office Spaces
Vivien Peltason, Jeanette Melin, Daniel Hutzschenreuter, Barbara Jung
Physikalisch-Technische Bundesanstalt (PTB), Berlin, Germany

2:35-4:05 Session 3 Spotlight, Room 1102:

History, Philosophy and Sociology of Measurement Symposium: What's So Great about Uncertainty? Chair, Kent Staley

How Uncertainty Allows Measurement to Produce Useful Results

Pierre Hugues Beauchemin, Kent Staley

Tufts University, Medford, MA, USA; Saint Louis University, St. Louis, MO, USA

Quantum Uncertainty and Metrological Uncertainty

Jacques Pienaar, Eran Tal

University of Massachusetts, Boston, MA, USA; McGill University, Montreal, Quebec, Canada

Measurements of Carbon in Soil

Aja Watkins

University of Wisconsin-Madison, WI, USA

The Role of Uncertainty in the Measurement of Inequality

Alessandra Basso

University of Cambridge, UK

4:05-4:35 Afternoon Break (30 mins.) Coffee, etc. in the foyer

4:35-6:05 Sessions 4A & 4B

4A, Room 1102. Symposium: Modernizing vs Ecologizing? Implications of Measurement for Social and Economic Organization: Chair, William Fisher

Modern vs Unmodern Measurement and Science: Consequences for Co-Produced Social Orders

William Fisher

BEAR Center, UC Berkeley; Living Capital Metrics LLC, Sausalito CA USA

Use of the Activity Inventory in the Low Vision Rehabilitation Network

Robert Massof

Johns Hopkins University, Baltimore, MD, USA

False Dichotomies: Tensions & Opportunities for the Evolution of Scientific Measurement

Celeste Combrinck

University of Pretoria, South Africa

4B, Room 1215. Symposium: Back-End Construct Map Development using an Exploratory Item Response Modeling Approach: Chair, Jerred Jolin

Developing a Teacher Professional Development Progress Variable Using Exploratory Item Response Modeling

Jerred Jolin; College of Education; Department of Special Education; Eastern Oregon University, La Grande, OR, USA

Alexander Mario Blum; Stanford Graduate School of Education; Enrich Your Academics, Palo Alto, CA, USA

Proposing Construct Maps for Teacher Development of an Anti-Racism Value Stance Using Exploratory Item Response Modeling

Jerred Jolin; College of Education; Department of Special Education; Eastern Oregon University, La Grande, OR, USA

Alexander Mario Blum; Stanford Graduate School of Education; Enrich Your Academics, Palo Alto, CA, USA

Mark Wilson; Graduate School of Education; University of California, Berkeley

Uncovering Patterns of Difficulty in Oral Production of Inflected Words Among Students with Dyslexia Compared to Typical Readers

Robin Irey, Alexander Blum, Jet Vonk, Marilu Gorno-Tempini

UC San Francisco, CA, USA

6:30 Happy Hour (no-host bar)

Cornerstone Berkeley

2367 Shattuck Ave, Berkeley, CA 94704-1552

Day 2 (6 August)

8:15-8:30 Day 2 Orientation, Room 1102

8:30-10:00 Sessions 5A & 5B

5A, Room 1102. Symposium: Rethinking Ongoing Debates in Measurement from the Perspective of Theory, Instrumentation, Scales & Units, Modeling: The TISM framework: Chair, David Torres Irribarra

The TISM Framework and Validity: Reinterpreting Longstanding Debates
Joshua McGrane
Assessment and Evaluation Research Center, University of Melbourne, Australia

The TISM Framework and the Concept of Multidimensionality
Derek Briggs
University of Colorado, Boulder, CO, USA

The TISM Framework and Reliability: Communicating Uncertainty in Human Measurement
David Torres Irribarra
Pontificia Universidad Católica de Chile, Chile

5B, Room 1215. Symposium: The Praxis of Measurement for Liberation towards the Development of the Soul of HBCU STEM Leadership Assessment: Chair, David Sul

The Theoretical Infrastructure for the Liberatory Praxis of Large-Scale Culturally Specific Assessment
David Sul
University of the Virgin Islands, USA

Putting Liberatory Measurement Theory into Practice: Constructing the CASL Soul of HBCU STEM Leadership Assessment
Angelicque Tucker-Blackmon
University of the Virgin Islands, USA

Reflection on the Liberatory Praxis of HBCU-Specific Assessment: HBCU Assessment Developers Reflect on their Journey towards Assessment Autonomy
David Sul, Angelicque Tucker-Blackmon, Kimarie Engerman, Elizabeth Jaeger
University of the Virgin Islands, USA

10:00-10:30 Morning Break (30 mins.) Coffee, etc. in the foyer

10:30-12:00 Sessions 6A & 6B

6A, Room 1102. History and Social Studies of Measurement: Chair, Bob Massof

Non-Epistemic Values in Health-Related Quality of Life Measurement Design
Sebastian Rodriguez Duque
McGill University, Canada

“Exacte measurynge, and speady reckenynge all maner lande [and] squared tymber”: Innovation and Resistance in Early Modern Anglophone Measurement
Jennifer Egloff

NYU Shanghai, China

Measurement in the Dictator Game: Constructs, validity and the threat of methodological artifact

Maria Jimenez-Buedo
Logic, History and Philosophy of Science Dept. UNED-Madrid

6B, Room 1215. Models and their Assessment: Chair, Perman Gochyyev

Have Validity Theories Run Their Course? A Model-Based, Metrological Alternative from a Psychometric Perspective

Daniel Katz
Northwest Education Association (NWEA), Beaverton, OR, USA

Towards a Model Agnostic Assessment of Metric Invariance

Noah Padgett, Tyler VanderWeele
Harvard University, USA

Novel Psychometric Indicator Assessments: The Relative Excess Correlation and Associated Matrices

Tyler VanderWeele, Noah Padgett
Harvard University, USA

12:00-1:00 Lunch (on your own)

1:00-2:15 SSM Business Meeting, Room 1102.

2:15-2:30 Group Photo, Ground Floor Patio

2:30-4:00 Session 7, Room 1102:

Spotlight: Issues in Measurement and Generative AI I. Chair, Namsoo Shin

The Gen AI intern – Adventures in using ChatGPT as a measurement assistant

Celeste Combrinck
University of Pretoria, South Africa

Utilizing Generative AI in Measurement Development: Under the Guidance of Mari et al.'s Hexagon Framework

Perman Gochyyev, Mark Wilson, University of California, Berkeley, CA, USA

Using Generative Artificial Intelligence to Measure Student Performance in Usable Knowledge

Namsoo Shin, Sangeetha Suresh, Parisa Kordjamshidi, Joseph Krajcik
Michigan State University, East Lansing, MI, USA

4:00-4:30 Afternoon Break (30 mins.) Coffee, etc. in the foyer

4:30-6:00 Sessions 8A & 8B

8A, Room 1102. Structure in Measurement: Chair, Eran Tal

Measurement and the Riddle of Factuality

Eran Tal
McGill University, Montreal, Quebec, Canada

Measurement And Instrument Development in The Human Sciences

Mariam Thalos
University of Tennessee Knoxville, USA

Some Pathologies of Measurement in The Human Sciences
Mark Wilson
Berkeley School of Education, UC Berkeley, CA, USA

8B, Room 1215. Educational and Psychological Measurement Applications, II: Chair, David Sul

On the Validity of Self-Report Surveys of Racial Discrimination
Morgan Thompson
Cornell University, Ithaca, NY, USA

Causal Analyses of Discrimination
Florence Robinson Adams
University of Cambridge, UK

The Problem of Isolating and Measuring Empathy
Riana Betzler
San Jose State University, San Jose, CA, USA

7:00 Conference Dinner
Faculty Club, UC Berkeley campus

Day 3 (7 August)

8:30-8:45 Day 3 Orientation, Room 1102

8:45-9:30 Invited Talk 2, Room 1102: Chair, Mark Wilson

Scaling and its Relationship with Measurement: Past, Present and Future

Derek Briggs
University of Colorado, Boulder, CO, USA

9:35-11:05 Session 9

9, Room 1102. Epistemic Issues: Chair, Luca Mari

Signposts on the Path from Nominal to Ordinal Scales

Roza Nalbandyan, Ben Domingue
Stanford University, USA

Navigating Uncertainty --- Climate Models as Epistemic Tools

Matthias Ackermann
Leibniz Universität, Hannover, Germany

Unit Standards: Towards a Realist Conventionalism about Measurement

Gerald Teng
University of Toronto, Canada

11:05-11:35 Morning Break (30 mins.) Coffee, etc. in the foyer

11:35-1:05 Sessions 10A & 10B

10A, Room 1102. Philosophy of Measurement: Chair, Russell Almond

The Intransitivity of Indifference

James Norris
University of Cambridge, UK

Analogy and Measure: Overview of a Thomistic Approach to Measurement

Thomas Ciavatti
Center for Thomistic Studies, University of St. Thomas, TX, USA

Context, Claims and Constructs in the Evidentiary Argument

Russell Almond
Florida State University, USA

10B, Room 1215. Educational and Psychological Measurement Applications, III: Chair, William P. Fisher, Jr.

Do the Scales Measuring School Engagement have Equivalent Meaning for Students in Kindergarten, Primary and Secondary Education?

Catalina Miranda
Pontificia Universidad Católica de Chile, Chile

The Role of Gender and Depressive Symptoms in Measuring Religiosity in Elderly

Pawel Zagozdzon, Kacper Jagiełło, Tomasz Zdrojewski
Medical University of Gdansk, Poland

The Effect of 'Mathematics Self-Efficacy' Mediated by 'Effort and Persistence in Mathematics' on 'Mathematics Achievement' Using PISA 2022 Data: A Comparison of South Korea, the USA, and Finland

Sun-Geun Baek, Seojin Kim, Yunah Kang, Woori Song
Department of Education, Seoul National University, South Korea

1:05-2:35 Lunch (on your own) and Posters: Ground Floor Foyer

Narratives and Literacy: Chair, Smriti Mehta

Use of Narrative Story Production Assessment in a Universal Screener

Mónica Zegers, Lillian Durán, Cengiz Zopluoglu, Amy Pratt, Javier Jasso, Gabriella Parham-Cruzado
University of California San Francisco, USA

Parents' Perceptions of the Importance of Phonics Instruction to Produce Proficient Readers

Qing Cai
University of California, Berkeley, USA

Measuring Adults' Digital Data and Safety Literacy (DDSL)

Shinyi Kang
Harvard Graduate School of Education, USA

Using Explanatory Item Response Models to Investigate Factors That Influence Word Recognition

Yukie Toyama , Elfrieda H. Hiebert, Robin Irey
University of California, Berkeley, USA

2:35-4:05 Session 11, Room 1102.

Spotlight: Validation and Explanatory Models: Chair, Florian Kaiser

Belonging in Science: A focus on the Construct

Linda Morell
University of California, Berkeley, USA

The Campbell Paradigm: A Model for Measuring Attitudes

Florian Kaiser, Mark Wilson
Otto-von-Guericke University Magdeburg, Germany

Measurement of Sensory Magnitudes: Reinterpretation of the Weber-Fechner Law

Robert Massof
Johns Hopkins University, USA

4:05-4:35 Afternoon Break (30 mins.) Coffee, etc. in the foyer

4:35-6:05 Session 12A &12B

12A, Room 1102. On the Measurable and Immeasurable: Chair, Smriti Mehta

Which (If Any) Psychological Constructs Can Be Measured?

Smriti Mehta
University of California, Berkeley

Leibniz Against the Absolute View of Quantity

Jen Nguyen
Bucknell University, USA

Integrating History and Philosophy of Measurement: Reflections on Its Past, Present and Future

Rebecca L. Jackson, Michele Luchetti
Max Planck Institute for the History of Science, Germany

12B, Room 1215. Issues in Measurement and Generative AI II. Chair: Linda Morell

AI and Measurement concerns: Dealing with imbalanced data in autoscoring

Yunting Liu, Xutao Feng, Yukie Toyama
University of California, Berkeley, USA

A Psychometric Investigation of the Self-Directed Online Learning Scale (SDOLS) Through Rasch Rating Scale Modeling

Hongwei Yang, Jian Su, Kelly D. Bradley
University of West Florida, USA

Inq-ITS: Leveraging learning sciences and computational sciences for real time, AI-driven assessment of students' science competencies and implications for learning and teaching

Janice Gobert
Rutgers University & Apprendis, USA

6:05-6:20 Closing Session, Room 1102

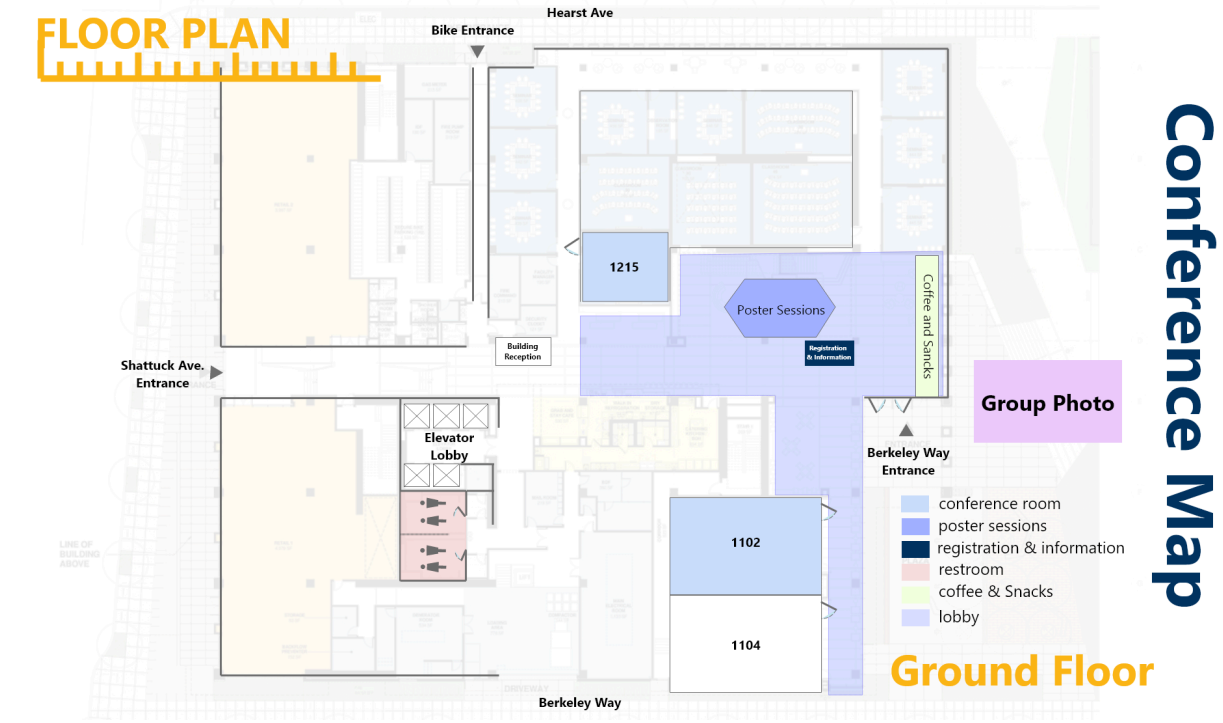
Day 4 (8 August)

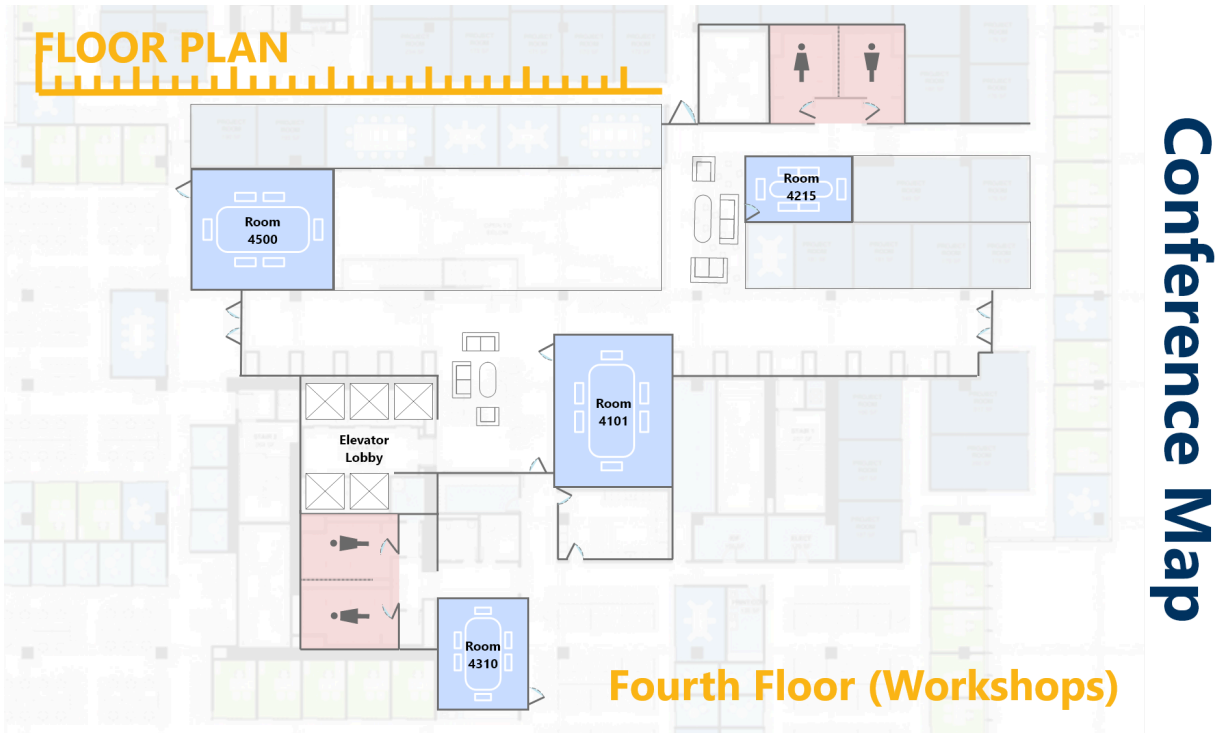
9:00-10:30 Campus Tour: Chair (Walking), Smriti Mehta

Meet at the Berkeley Way entrance of the Berkeley School of Education at 8:30 am or directly at the Springer Gateway near Oxford and Addison at 8:45 for a prompt departure at 9:00 from Springer Gateway.

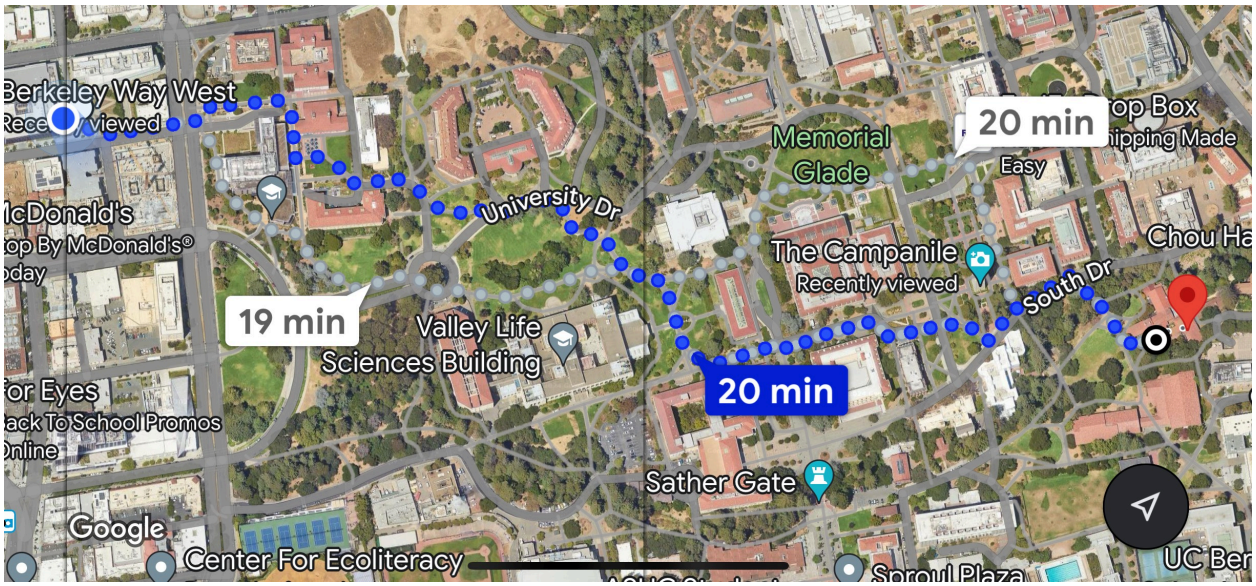
MAPS

BWW Building ...





From the BWW Building to the Faculty Club ...



See also:
https://maps.app.goo.gl/mgTedp4PojogXMF2A?g_st=com.google.maps.preview.copy