



PROGRAM

September 23, 2023

Harvard University
Science Center, Lecture Halls C and D
1 Oxford Street
Cambridge, Massachusetts 02138

Symposium Organizing Committee:

Mark E. Glickman, Department of Statistics, Harvard University – Co-chair

Scott R. Evans, Department of Biostatistics and Bioinformatics, George Washington University –
Co-chair

Sponsors:

- Harvard University Department of Statistics (<https://statistics.fas.harvard.edu/>)
- Big League Advantage (<https://bigleagueadvantage.com/>)
- StatsBomb (<https://statsbomb.com/>)
- DeGruyter (<http://www.degruyter.com/>)
- ESPN Analytics (<http://www.espn.com/analytics/>)

Wifi access:

Free guest wifi access will be available for conference participants in the Science Center. Please follow these instructions:

- With your laptop or mobile device's wifi turned on, choose "Harvard University" Wireless Network (SSID).
- Open a browser and go to <http://getonline.harvard.edu>. Select "I am a guest" from that page.
- Register for guest access on the resulting page. You will be asked for your name and e-mail address, and a confirmation that you accept the terms of use.

Talk and Poster Abstracts:

Abstracts for all talks and posters are available online at <http://nessis.org/abstracts-only23.pdf>



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2023 New England Symposium on Statistics in Sports

September 23, 2023

Breakfast and Registration: Foyer area

8:00am – 9:15am: Coffee, tea, pastries

Welcome Address: Lecture Hall C

9:15am – 9:30am: Mark Glickman and Scott Evans

Morning Session: Lecture Hall C - Featured talks

- 9:30am – 10:00am: Jim Albert, Bowling Green State University
“Contributions of Carl Morris in Sports Analytics”
- 10:00am – 10:30am: Quang Nguyen, Carnegie Mellon University
“Here Comes the STRAIN: Analyzing Defensive Pass Rush in American Football with Player Tracking Data”
- 10:30am – 11:00am: Zhutian Chen, Harvard University
“When Data Meets Reality: Augmenting Sports Videos with Visualizations”

Break: Foyer area

11:00am – 11:30am: Coffee and tea

Late-morning Parallel Sessions

11:30am – 1:00pm: Lecture Halls C and D

Lecture Hall C - Advances in American Football

- 11:30am – 12:00pm: Robert Bajons, Vienna University of Economics and Business
“A Weighted Curve Clustering Approach for Analyzing Pass Rush Routes in American Football”
- 12:00pm – 12:30pm: Ryan Brill, University of Pennsylvania
“Analytics, have some humility: A statistical view of fourth down decision making”
- 12:30pm – 1:00pm: Ron Yurko, Carnegie Mellon University
“NFL Ghosts: Evaluating pass defense with high-dimensional CDEs”

Lecture Hall D - Explorations in Soccer

- 11:30am – 12:00pm: Pete Philipson, Newcastle University
“Yellow fever: investigating referee consistency in the ‘Big 5’ men’s European football leagues”
- 12:00pm – 12:30pm: Guanyu Hu, University of Missouri
“How much does Home Field Advantage matter in Soccer Games?”
- 12:30pm – 1:00pm: Chaoyi Gu, Loughborough University
“Contextualized Generative Ghosting Model as Benchmark for Evaluating Player Movement in Football”

Lunch break: Foyer area

1:00pm – 2:00pm: Sandwiches, beverages, snacks

Afternoon Parallel Sessions

2:00pm – 3:30pm: Lecture Halls C and D

Lecture Hall C - Individual Performance in Team Sports

2:00pm – 2:30pm: Scott Powers, Rice University

*“Estimating individual contributions to team success
in women’s college volleyball”*

2:30pm – 3:00pm: Nicholas Kiriazis, McGill University

*“A Bayesian two-stage framework for lineup
independent assessment of individual rebounding in the NBA”*

3:00pm – 3:30pm: Ryan Yee, University of Wisconsin, Madison

*“Evaluating plate discipline in Major League Baseball
with Bayesian Additive Regression Trees”*

Lecture Hall D - Novel Applications in Sports Analytics

2:00pm – 2:30pm: Rachael Walker, University of Toronto

*“Aiming for Competitive Balance: Developing Fair
Handicap Systems for Darts using a Markov Decision Process”*

2:30pm – 3:00pm: Marcos Matabuena, Universidad de Santiago de Compostela

*“Estimating Knee Movement Patterns of Recreational Runners
Across Training Sessions Using Multilevel Functional Regression Models”*

3:00pm – 3:30pm: Suraj Bhuvra, US Olympic & Paralympic Committee

“Improving Medal Projections in Olympic Best Mark Sports”

Poster Session: Foyer area

3:30pm – 5:00pm: With snacks and beverages

Panel Discussion: Lecture Hall C

5:00pm – 6:30pm: *“Successful Outreach in Sports Analytics”*

Moderator: Brian Macdonald – Yale University

Panelist: Tegan Bunsu Ashby – Philadelphia Phillies

Panelist: Lawrence Clark – University of Maryland

Panelist: Mike Lopez – National Football League

Panelist: Michael Schuckers – St. Lawrence University

Post-NESSIS Get-Together

Hosted by the Harvard Sports Analysis Collective (HSAC)

7:00pm – 9:00pm: Cambridge Queen’s Head Pub
Memorial Hall, Lower Level
45 Quincy Street
Cambridge, MA 02138
<https://dso.college.harvard.edu/cambridge-queens-head-pub>

Appetizers provided; Cash bar only.