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TO: Boston University Faculty

FROM: Jean Morrison, University Provost and Chief Academic Officer

DATE: November 27, 2018

SUBJECT: Appointment of Six New Data Science Faculty Fellows at Boston University

I am delighted to announce the appointment of six new Data Science Faculty Fellows through BU's Data Science Initiative (DSI).

Launched in 2017, the Data Science Faculty Fellows program brings together uniquely talented faculty whose expertise transcends the field's traditional boundaries of Computer Science, Statistics, and Electrical & Computer Engineering to enable fundamental advances across the entire academic landscape. Those chosen for this distinction are expected to play a leading role in steering the DSI, based out of the Rafik B. Hariri Institute for Computing and Computational Science and Engineering, and in helping to build on BU's vision for research and education in this strategically important area.

Last year, we appointed our first three Data Science Faculty Fellows, Professor John Byers of the Department of Computer Science, Professor Ahmed Ghappour of the School of Law, and Professor Adam Smith of the Department of Computer Science. As with Professors Byers, Ghappour, and Smith, this year's Fellows emerged from a rigorous selection process and represent a host of diverse disciplines. All have been cited for exceptional contributions to their areas of study and for the versatility, multidisciplinary scope, and tremendous potential of their research to yield new innovations and breakthroughs.

This year's Data Science Faculty Fellows are:

- **Margrit Betke**
  Professor of Computer Science, College of Arts & Sciences
  Professor Betke has been a member of BU's Computer Science faculty since 2000 and co-leads the Image and Video Computing Research Group in her department and the AI Research Initiative at the Hariri Institute for Computing. Her current work applies machine learning and computer vision to such areas as medical imaging, interfaces for people with disabilities, assessing home-based physical therapy, quantifying political bias in the news, and analyzing online product availability and pricing in relation to world events. A senior member of the Association for Computing Machinery and the Institute of Electrical and Electronics Engineers (IEEE), she has published extensively in premier journals and is supported by several major grants from the National Science Foundation

and Google. She holds a PhD and MS in electrical engineering and computer science from Massachusetts Institute of Technology.

- **Christine Cheng**
  Assistant Professor of Biology, College of Arts & Sciences
  A member of the BU faculty since 2016, Christine Cheng integrates cell and molecular biology with computational approaches to help identify new genetic links to diseases including diabetes, Alzheimer's disease, HIV infection, and opioid addiction. Her current projects are focused on massively-parallel single-cell transcriptomic and epigenetic profiling. She is a past recipient of the NIH's Ruth L. Kirschstein National Research Fellowship and has published numerous articles in top journals including *Nature Communications*, *Science Signaling*, and *Cell Systems*. She is a graduate of National Taiwan University and holds a PhD in bioinformatics and systems biology from University of California, San Diego and an MS in computer science from Stanford University.

- **Erik Kolaczyk**
  Professor of Mathematics & Statistics, College of Arts & Sciences
  Eric Kolaczyk has been a member of the Mathematics & Statistics faculty since 1998 and is director of the department's Program in Statistics. He is an internationally recognized leader in statistics at its interface with multi-scale and network analysis, whose applied work has had broad implications in areas including bioinformatics, computational neuroscience, computer network traffic analysis, and social work. The author of three books and dozens of widely cited journal articles, he is a senior member of IEEE and an elected fellow of the American Association for the Advancement of Science, the Institute of Mathematical Statistics, the American Statistical Association, and the International Statistical Institute. He is a graduate of The University of Chicago and holds a PhD and MS in statistics from Stanford University.

- **Elaine Nsoesie**
  Assistant Professor of Global Health, School of Public Health
  Elaine Nsoesie joined Boston University in fall 2018 and specializes in global health data science. Her previous research has centered on the modeling of infectious diseases, using statistical and computational approaches to better understand the spread of disease (including Ebola and Zika) and improve public health practice. She is currently focused on machine learning frameworks for monitoring foodborne illness reports using social media data and on quantifying and addressing bias in digital data used in public health research. She has published extensively in premier health, technology, and informatics journals and received significant grant support from NIH and the Robert Wood Johnson Foundation. She is a graduate of University of Maryland College Park and holds a PhD in genetics, bioinformatics, and computational biology and an MS in statistics, both from Virginia Tech.

- **Francesco Orabona**
  Assistant Professor of Electrical & Computer Engineering, College of Engineering
  Francesco Orabona joined the Department of Electrical & Computer Engineering in 2018, where he leads the Optimization and Machine Learning Lab. His research bridges the mathematical foundations of learning theory and data science, with applications to

scientific, societal, and real-world engineering problems. It has led to the development of autonomous online learning algorithms that require minimal human supervision – first-of-its-kind work that is now part of Microsoft's Machine Learning toolkit. The author of more than 60 peer-reviewed articles, he is a graduate of University of Naples (Italy), where he additionally earned his MS in electrical engineering. He holds a PhD in electrical engineering from University of Genoa.

- **Yannis Paschalidis**
  Professor of Electrical & Computer Engineering, Biomedical Engineering, and Systems Engineering
  Yannis Paschalidis has been a College of Engineering faculty member since 1996 and is director of the BU-based Center for Information and Systems Engineering. An internationally-recognized leader in systems and control, networks, decision theory, optimization, and operations research, he is currently developing predictive analytics with applications to a number of areas with significant impact on society, including computational biology, digital health, smart cities, and transportation systems. He is a fellow of IEEE, the founding editor-in-chief of the IEEE Transactions on Control of Network Systems, and has published extensively in top scientific and engineering journals. A graduate of National Technical University of Athens (Greece), he holds a PhD and MS in electrical engineering and computer science from Massachusetts Institute of Technology.

Professors Betke, Cheng, Kolaczyk, Nsoesie, Orabona, and Paschalidis began their appointments this fall as Data Science Faculty Fellows. All bring enormous talent and potential through their unique interdisciplinary portfolios to advance BU's data science capabilities, and we are excited for what the future holds for them and their research. We look forward to their contributions in the years ahead to further develop excellence and innovation in data science as part of our vibrant academic community.

Thank you for your assistance throughout this process in identifying and nominating the talented candidates we considered for these fellowships. Thanks are also due to DSI Chair, Hariri Institute Director, and William Fairfield Warren Professor Azer Bestavros for his continued leadership on this important initiative.

Cc: Azer Bestavros