Andrade, Henrique C.M., Buğra Gedik, and Deepak S. Turaga. *Fundamentals of Stream Processing: Application Design, Systems, and Analytics*. New York, NY: Cambridge University Press, 2014, 529 pp. $99.00 (Hardbound).

Stream processing is a distributed computing paradigm that supports the gathering, processing, and analysis of high-volume, heterogeneous, continuous data streams to extract insights and actionable results in real time. This comprehensive, hands-on guide, combining the fundamental building blocks and emerging research in stream processing, is ideal for application designers, system builders, analytic developers, as well as for students and researchers in the field. This book introduces the key components of the stream processing computing paradigm, including the distributed system infrastructure, the programming model, design patterns, and streaming analytics. The explanation of the underlying theoretical principles, illustrative examples, and implementations using the IBM InfoSphere Streams SPL language and real-world case studies provide students and practitioners with a comprehensive understanding of stream processing applications and the middleware that supports them.

Henrique C. M. Andrade is a vice president at JP Morgan and an adjunct associate professor in the Electrical Engineering Department at Columbia University. Along with Dr. Gedik, he is the co-inventor of the SPADE and the SPL stream processing languages. He has published over 50 peer-reviewed articles and is the co-recipient of the ACM SoftVis 2009, IEEE DSN 2011, and ACM DEBS 2011 best paper awards.

Buğra Gedik is in the faculty of the Computer Engineering Department, Bilkent University, Turkey. He is the co-inventor of the SPADE and the SPL stream processing languages. He has published over 50 peer-reviewed articles and is the co-recipient of the IEEE ICDCS 2003, IEEE DSN 2011, ACM DEBS 2011 and 2012, and IEEE ICWS 2013 best paper awards. He has been an Associate Editor for the *IEEE Transactions on Services Computing*. He has filed over 30 patents. He was named an IBM Master Inventor and is the recipient of an IBM Corporate Award.

Deepak S. Turaga is the manager of the Exploratory Stream Analytics department at the IBM T.J. Watson Research Center in Yorktown Heights and an adjunct associate professor in the Electrical Engineering Department at Columbia University. He has published over 75 peer-reviewed articles and has received the 2006 IEEE TCSVT best paper and 2008 IEEE ICASSP best student paper awards. He has been an Associate Editor for the *IEEE Transactions on CSVT* as well as *IEEE Transactions on Multimedia*.