

Hampton, Jerry R. *Introduction to MIMO Communications*. New York, NY: Cambridge University Press, 2014, 288 pp. \$95.00 (Hardbound).

This accessible, self-contained guide contains everything you need to get up to speed on the theory and implementation of MIMO techniques.

In-depth coverage of topics such as RF propagation, space-time coding, spatial multiplexing, OFDM in MIMO for broadband applications, the theoretical MIMO capacity formula, and channel estimation, will give you a deep understanding of how the results are obtained, while detailed descriptions of how MIMO implemented in commercial WiFi and LTE networks will help you apply the theory to practical wireless systems.

Key concepts in matrix mathematics and information theory are introduced and developed as you need them, and key results are derived step by step, with no details omitted. Including numerous worked examples, and end-of-chapter exercises to reinforce and solidify your understanding, this is the perfect introduction to MIMO for anyone new to the field.

Jerry R. Hampton is a research engineer with over 30 years' experience in communications systems engineering. He is a member of the principal professional staff in the Applied Physics Laboratory, and an Adjunct Professor in the Whiting School of Engineering, at The John Hopkins University, where he teaches a graduate course in MIMO wireless communications.