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Uniform central limit theorems. 2nd ed. (English) [Zbl 1317.60030](#)

[Cambridge Studies in Advanced Mathematics](#) 142. Cambridge: Cambridge University Press (ISBN 978-0-521-73841-5/pbk; 978-0-521-49884-5/hbk; 978-1-139-01483-0/ebook). 482 p. (2014).

Publisher's description: In this new edition of a classic work on empirical processes the author, an acknowledged expert, gives a thorough treatment of the subject with the addition of several proved theorems not included in the first edition, including the Bretagnolle-Massart theorem giving constants in the Komlos-Major-Tusnady rate of convergence for the classical empirical process, Massart's form of the Dvoretzky-Kiefer-Wolfowitz inequality with precise constant, Talagrand's generic chaining approach to boundedness of Gaussian processes, a characterization of uniform Glivenko-Cantelli classes of functions, Giné and Zinn's characterization of uniform Donsker classes, and the Bousquet-Koltchinskii-Panchenko theorem that the convex hull of a uniform Donsker class is uniform Donsker. The book will be an essential reference for mathematicians working in infinite-dimensional central limit theorems, mathematical statisticians, and computer scientists working in computer learning theory. Problems are included at the end of each chapter so the book can also be used as an advanced text.

See the review of the first edition in [\[Zbl 0951.60033\]](#).

MSC:

- [60F17](#) Functional limit theorems; invariance principles
- [60-02](#) Research exposition (monographs, survey articles) pertaining to probability theory
- [60G07](#) General theory of stochastic processes
- [60G15](#) Gaussian processes
- [60G17](#) Sample path properties
- [60B12](#) Limit theorems for vector-valued random variables (infinite-dimensional case)
- [62E20](#) Asymptotic distribution theory in statistics
- [68Q25](#) Analysis of algorithms and problem complexity

Cited in 17 Documents

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