

Zeitschrift: L'Enseignement Mathématique
Herausgeber: Commission Internationale de l'Enseignement Mathématique
Band: 48 (2002)
Heft: 3-4: L'ENSEIGNEMENT MATHÉMATIQUE

Kapitel: Équations aux différences finies, équations fonctionnelles

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 17.04.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

Équations aux différences finies, équations fonctionnelles

V. LAKSHMIKANTHAM, Donato TRIGIANTE. — **Theory of difference equations: numerical methods and applications.** — Second edition. — Pure and applied mathematics, vol. 251. — Un vol. relié, 26 × 18, de v, 300 p. — ISBN 0-8247-0803-2. — Prix: US\$150.00. — Marcel Dekker, New York, 2002.

This text provides a clear and comprehensive overview of the fundamental theories, numerical methods, and iterative processes encountered in difference calculus and explores classical problems such as orthogonal polynomials, the Euclidean algorithm, roots of polynomials, and well-conditioning — presenting practical applications in fields such as economics, chemistry, population dynamics, and queueing theory. Containing numerous end-of-chapter examples and solved equations to highlight key mathematical concepts, this book demonstrates the versatility of difference equations with numerous models and real-world examples... offers a unified treatment of stability theory using Liapunov functions and comparison techniques... examines the relationships between difference equations and linear algebra, number theory, and population dynamics... summarizes useful methods to solve difference equations with constant coefficients... stresses the importance of difference equations in numerical analysis and combinatorics... discusses the Pascal matrix and its properties... and analyzes the Gaussian arithmetic-geometric mean.

Approximations et développements en série

Q.I. RAHMAN, G. SCHMEISSER. — **Analytic theory of polynomials.** — London Mathematical Society monographs. New series, vol. 26. — Un vol. relié, 16,5 × 24, de XIV, 742 p. — ISBN 0-19-853493-0. — Prix: €90.00. — Clarendon Press, Oxford, 2002.

This book presents easy to understand proofs of some of the most difficult results about polynomials demonstrated by means of applications. Readership: Professional and academic mathematicians of complex analysis, approximation theory and theoretical numerical analysis, graduate students in mathematics, engineers, statisticians and theoretical physicists. — *Contents*: Introduction. — Part 1, Critical points in terms of zeros: Fundamental results on critical points. More sophisticated methods. More specific results on critical points. Applications to compositions of polynomials. Polynomials with real zeros. Conjectures and solutions. — Part 2, Zeros in terms of coefficients: Inclusion of all zeros. Inclusion of some of the zeros. Number of zeros in an interval. Number of zeros in a domain. — Part 3, Extremal properties: Growth estimates. Mean values. Derivative estimates on the unit disc. Derivative estimates on the unit interval. Coefficient estimates.

Analyse de Fourier, analyse harmonique abstraite

Agostino ABBATE, Casimer M. DECUSATIS, Pankaj K. DAS. — **Wavelets and subbands: fundamentals and applications.** — Applied and numerical harmonic analysis. — Un vol. relié, 16 × 24, de XIV, 551 p. — ISBN 0-8176-4136-X (Boston), 3-7643-4136-X (Basel). — Prix: SFr. 158.00. — Birkhäuser, Boston, 2002.

The book is designed to present an understanding of wavelets and their development from a continuous-domain transformation to a frame representation and finally to multiresolution analysis tools such as subband decomposition. — *Topics and features*: provides an understanding of the link between the continuous wavelet transform, the fast wavelet transform, and subband