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Nota di contenuto	Linear Barycentric Rational Interpolation with Guaranteed Degree of Exactness (J.-P. Berrut) -- Approximation by C1 Splines on Piecewise Conic Domains (O. Davydoc, W.P. Yeo) -- A Rescaled Method for RBF Approximation (S. De Marchi, A. Idda, G. Santin) -- Flavors of Comprehensive Sensing (S. Foucart) -- Computing with Functions on Domains with Arbitrary Shapes (D. Huybrechs, R. Matthysen) -- A Polygonal Spline Method for General 2nd-Order Elliptic Equations and its Applications (M.-J. Lai, J. Lanterman) -- An Adaptive Triangulation Method for Bivariate Spline Solutions of PDEs (M.-J. Lai, C. Mersmann) -- Refinable Functions with PV Dilations (W. Lawton) -- Polyhyperbolic Cardinal Splines (J. Ledford) -- Adaptive Computation with Splines on Triangulations with Hanging Vertices (S. Li, L.L. Schumaker) -- Scaling Limits of Polynomials and Entire Functions of Exponential Type (D.S. Lubinsky) -- Generalized B-Splines in Isogeometric Analysis (C. Manni, F. Roman, H. Speleers) -- On Polynomials with Vanishing Hessians and Some Density Problems (T. McKinley, B. Shekhtman) -- Batched Stochastic Gradient Descent with Weighted Sampling (D. Needell, R.

Ward) -- A Fractional Spline Collocation Method for the Fractional Order Logistic Equation (F. Pitolli, L. Pezza) -- The Complete Length Twelve Parametrized Wavelets (D.W. Roach) -- Potential Theoretic Approach to Design of Accurate Numerical Integration Formulas in Weighted Hardy Spaces (K. Tanaka, T. Okayama, M. Sugihara) -- A Class of Intrinsic Trigonometric Mode Polynomials (V. Vatchev) -- Kernel-based Approximation Methods for Partial Differential Equations: Deterministic or Stochastic Problems? (Q. Ye).

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**Sommario/riassunto**

These proceedings are based on papers presented at the international conference Approximation Theory XV, which was held May 22–25, 2016 in San Antonio, Texas. The conference was the fifteenth in a series of meetings in Approximation Theory held at various locations in the United States, and was attended by 146 participants. The book contains longer survey papers by some of the invited speakers covering topics such as compressive sensing, isogeometric analysis, and scaling limits of polynomials and entire functions of exponential type. The book also includes papers on a variety of current topics in Approximation Theory drawn from areas such as advances in kernel approximation with applications, approximation theory and algebraic geometry, multivariate splines for applications, practical function approximation, approximation of PDEs, wavelets and framelets with applications, approximation theory in signal processing, compressive sensing, rational interpolation, spline approximation in isogeometric analysis, approximation of fractional differential equations, numerical integration formulas, and trigonometric polynomial approximation.

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