

LIST of PUBLICATIONS of CARLA MANNI

**2023**

- [130–2023] K. Raval, **C. Manni**, H. Speleers: *Tchebycheffian B-splines in isogeometric Galerkin methods*, Computer Methods in Applied Mechanics and Engineering, 403 (2023) 115648  
<https://doi.org/10.1016/j.cma.2022.115648>
- [129–2023] M. Mazza, M. Donatelli, **C. Manni**, H. Speleers: *On the matrices in B-spline collocation methods for Riesz fractional equations and their spectral properties*, Numerical Linear Algebra with Applications, 30 (2023) e2462
- [128–2023] M. Mazza, M. Donatelli, **C. Manni**, H. Speleers: *Spectral Analysis of Matrices in Isogeometric Galerkin methods for Riesz Fractional Equations* proceedings of “Fractional Differential Equations: Modeling, Discretization, and Numerical Solvers” Springer INdAM Series, to appear

**2022**

- [127–2022] C. Garoni, **C. Manni**, F. Pelosi, H. Speleers: *Spectral analysis of matrices resulting from isogeometric immersed methods and trimmed geometries*, Computer Methods in Applied Mechanics and Engineering, 400 (2022) 115551  
<https://doi.org/10.1016/j.cma.2022.115551>
- [126–2022] T. Lyche, **C. Manni**, H. Speleers: *Construction of  $C^2$  cubic splines on arbitrary triangulations*, Foundations of Computational Mathematics, 22, (2022) 1309–1350.  
<https://doi.org/10.1007/s10208-022-09553-z>
- [125–2022] E. Sande, **C. Manni**, H. Speleers: *Ritz-type projectors with boundary interpolation properties and explicit spline error estimates*, Numerische Mathematik, 151 (2022), 475–494.  
[10.1007/s00211-022-01286-z](https://doi.org/10.1007/s00211-022-01286-z)
- [124–2022] **C. Manni**, E. Sande, H. Speleers: *Application of optimal spline subspaces for the removal of spurious outliers in isogeometric discretizations*, Computer Methods in Applied Mechanics and Engineering, 389 (2022) 114260.  
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<https://doi.org/10.1016/j.apnum.2021.04.009>
- [122–2021] M. S. Floater, **C. Manni**, E. Sande, H. Speleers: *Best low-rank approximations and Kolmogorov  $n$ -widths*, SIAM Journal on Matrix Analysis and Applications, 42 (2021), 330–350  
<https://doi.org/10.1137/20M1355720>

**2020**

- [121–2020] F. Patrizi, **C. Manni**, F. Pelosi, H. Speleers: *Adaptive refinement with locally linearly independent LR B-splines: Theory and applications*, Computer Methods in Applied Mechanics and Engineering, 369 (2020) 113230  
<https://doi.org/10.1016/j.cma.2020.113230>
- [120–2020] C. Garoni, **C. Manni**, S. Serra-Capizzano, H. Speleers: *NURBS in isogeometric discretization methods: A spectral analysis*, Numerical Linear Algebra with Applications, 2020;27:e2318.  
<https://doi.org/10.1002/nla.2318>
- [119–2020] R. R. Hiemstra, T. J. R. Hughes, **C. Manni**, H. Speleers, D. Toshniwal: *A Tchebycheffian extension of multi-degree B-splines: Algorithmic computation and properties*, SIAM Journal on Numerical Analysis, 58 (2020) 1138–1163.

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- [118–2020] E. Sande, **C. Manni**, H. Speleers: *Explicit error estimates for spline approximation of arbitrary smoothness in isogeometric analysis*, Numerische Mathematik, 144 (2020) 889–929.  
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- [117–2020] D. Toshniwal, H. Speleers, R. R. Hiemstra, **C. Manni**, T. J. R. Hughes: *Multi-degree B-splines: Algorithmic computation and properties*, CAGD, 76 (2020), 101792  
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- [116–2020] M. Mazza, **C. Manni**, H. Speleers: *Spectral analysis of isogeometric discretizations of 2D curl-div problems with general geometry*, in S. J. Sherwin, D. Moxey, J. Peiró, P. E. Vincent, C. Schwab, eds.: Spectral and High Order Methods for Partial Differential Equations ICOSAHOM 2018, Lecture Notes in Computational Science and Engineering (2020), 134, 251–262.  
[https://doi.org/10.1007/978-3-030-39647-3\\_19](https://doi.org/10.1007/978-3-030-39647-3_19)

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- [115–2019] T. Lyche, **C. Manni**, H. Speleers: *Tchebycheffian B-Splines Revisited: An Introductory Exposition*, in C. Giannelli H. Speleers, eds.: Advanced Methods for Geometric Modeling and Numerical Simulation, Springer INdAM Series 35 (2019) 179–216.
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