



Professor Alexander I. Bobenko

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<https://page.math.tu-berlin.de/~bobenko/>

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<https://scholar.google.de/citations?user=BqbscJEAAAIA&hl=de>

<https://www.researchgate.net/scientific-contributions/8185607-Alexander-I-Bobenko>

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Biography:

Alexander Bobenko is a professor of Mathematics at the Technische Universität Berlin, Germany. His fields of interest include geometry, mathematical physics and applications - in particular differential geometry, discrete differential geometry, integrable systems, Riemann surfaces, and geometry processing. He is currently coordinator of the DFG Transregional Collaborative Research Center "Discretization in Geometry and Dynamics", a member of the Executive Board of the Berlin Mathematical School, and a member of the DFG Research Center "Matheon".

Selected Publications:

Books:

Alexander I. Bobenko, Peter Schroeder, John M. Sullivan and Guenter M. Ziegler (Editors) Discrete Differential Geometry, Birkhauser, 2008

Alexander I. Bobenko (Editor), Advanced Discrete Differential Geometry, Springer, 2016

Journal Articles, etc.:

- A. I. Bobenko and Yu. B. Suris. Discrete Time Lagrangian Mechanics on Lie Groups, with an Application to the Lagrange Top. *Communications in Mathematical Physics*, 204:147–188, 1999
- A. Bobenko, D. Matthes, and Y. B. Suris. Discrete and smooth orthogonal systems: C^∞ -approximation. *International Mathematics Research Notices*, 45:2415–2459, 2003.
- A. Bobenko and P. Schröder. Discrete Willmore Flow. In *Proceedings of the third Eurographics symposium on Geometry processing*, page 101. Eurographics Association, 2005
- A. Bobenko and B. A. Springborn. Minimal surfaces from circle patterns : Geometry from combinatorics. *Annals of Mathematics*, 164:231–264, 2006
- H. Pottmann, Y. Liu, J. Wallner, A. Bobenko, and W. Wang. Geometry of multi-layer freeform structures for architecture. *ACM Transactions on Graphics*, 26(3):65, July 2007
- A. Bobenko and Y. Suris. Discrete differential geometry. *Integrable Structure*. American Mathematical Society, 2008.
- A. Bobenko. Surfaces from Circles. In *Discrete Differential Geometry*, volume 38, pages 3–35. Springer, 2008
- W. K. Schief, A. Bobenko, and T. Hoffmann. On the Integrability of Infinitesimal and Finite Deformations of Polyhedral Surfaces. 38:67–93, 2008.
- A. I. Bobenko, H. Pottmann, and J. Wallner. A curvature theory for discrete surfaces based on mesh parallelity. *Mathematische Annalen*, 348(1):1–24, 2010.
- A. Bobenko and E. Huhnen-Venedey. Curvature line parametrized surfaces and orthogonal coordinate systems: discretization with Dupin cyclides. *Geometriae Dedicata*, 159(1):207–237, 2012.
- Bobenko, A. , and Hoffmann, H. 2016. “S-Conical CMC Surfaces. Towards a Unified Theory of Discrete Surfaces with Constant Mean Curvature.” In *Advances in Discrete Differential Geometry*, 287– 308.
- Bobenko, A. and Romon, P. 2017. “Discrete CMC Surfaces in R^3 and Discrete Minimal Surfaces in S^3 : A Discrete Lawson Correspondence.” *Journal of Integrable Systems* 2 (April): 1–18.