

Contents

Discrete Conformal Maps: Boundary Value Problems, Circle Domains, Fuchsian and Schottky Uniformization	1
Alexander I. Bobenko, Stefan Sechelmann and Boris Springborn	
Discrete Complex Analysis on Planar Quad-Graphs	57
Alexander I. Bobenko and Felix Günther	
Approximation of Conformal Mappings Using Conformally Equivalent Triangular Lattices	133
Ulrike Bücking	
Numerical Methods for the Discrete Map Z^a	151
Folkmar Bornemann, Alexander Its, Sheehan Olver and Georg Wechsberger	
A Variational Principle for Cyclic Polygons with Prescribed Edge Lengths	177
Hana Kouřimská, Lara Skuppin and Boris Springborn	
Complex Line Bundles Over Simplicial Complexes and Their Applications	197
Felix Knöppel and Ulrich Pinkall	
Holomorphic Vector Fields and Quadratic Differentials on Planar Triangular Meshes	241
Wai Yeung Lam and Ulrich Pinkall	
Vertex Normals and Face Curvatures of Triangle Meshes	267
Xiang Sun, Caigui Jiang, Johannes Wallner and Helmut Pottmann	
S-Conical CMC Surfaces. Towards a Unified Theory of Discrete Surfaces with Constant Mean Curvature	287
Alexander I. Bobenko and Tim Hoffmann	

Constructing Solutions to the Björling Problem for Isothermic Surfaces by Structure Preserving Discretization 309
Ulrike Bücking and Daniel Matthes

On the Lagrangian Structure of Integrable Hierarchies 347
Yuri B. Suris and Mats Vermeeren

On the Variational Interpretation of the Discrete KP Equation. 379
Raphael Boll, Matteo Petrera and Yuri B. Suris

Six Topics on Inscriptible Polytopes 407
Arnau Padrol and Günter M. Ziegler

DGD Gallery: Storage, Sharing, and Publication of Digital Research Data 421
Michael Joswig, Milan Mehner, Stefan Sechelmann, Jan Techter and Alexander I. Bobenko