Publications:

Robotic system and method for manufacturing of objects
Publication: Research › Patent – Annual report year: 2017

Pseudospherical surfaces with singularities
Publication: Research - peer-review › Journal article – Annual report year: 2016

Rationalization in architecture with surfaces foliated by elastic curves
Publication: Research › Ph.D. thesis – Annual report year: 2017

Remarks on the boundary curve of a constant mean curvature topological disc
Publication: Research - peer-review › Journal article – Annual report year: 2016

Approximation by planar elastic curves
Publication: Research - peer-review › Journal article – Annual report year: 2016

Designing for hot-blade cutting: Geometric Approaches for High-Speed Manufacturing of Doubly-Curved Architectural Surfaces
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Hot Blade Cuttings for the Building Industries
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Robotic Hot-Blade Cutting: An Industrial Approach to Cost-Effective Production of Double Curved Concrete Structures
Publication: Research - peer-review › Book chapter – Annual report year: 2016

Spherical Surfaces
Publication: Research - peer-review › Journal article – Annual report year: 2016

Deformations of constant mean curvature surfaces preserving symmetries and the Hopf differential
Publication: Research - peer-review › Journal article – Annual report year: 2015

Surfaces with Natural Ridges
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015
Constant Gaussian curvature surfaces in the 3-sphere via loop groups
Publication: Research - peer-review › Journal article – Annual report year: 2015

Timelike Constant Mean Curvature Surfaces with Singularities
Publication: Research - peer-review › Journal article – Annual report year: 2013

The geometric Cauchy problem for surfaces with Lorentzian harmonic Gauss maps
Publication: Research - peer-review › Journal article – Annual report year: 2013

Geometric Cauchy problems for spacelike and timelike CMC surfaces in $\mathbb{R}^{2,1}$
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Singularities of spacelike constant mean curvature surfaces in Lorentz-Minkowski space
Publication: Research - peer-review › Journal article – Annual report year: 2011

Holomorphic representation of constant mean curvature surfaces in Minkowski space: Consequences of non-compactness in loop group methods
Publication: Research - peer-review › Journal article – Annual report year: 2010

The Björling problem for non-minimal constant mean curvature surfaces.
Publication: Research - peer-review › Journal article – Annual report year: 2010

Generalized DPW method and an application to isometric immersions of space forms
Publication: Research - peer-review › Journal article – Annual report year: 2008

A loop group formulation for constant curvature submanifolds of pseudo-Euclidean space
Publication: Research - peer-review › Journal article – Annual report year: 2008

Constant mean curvature surfaces in Euclidean and Minkowski 3-spaces
Publication: Research - peer-review › Conference article – Annual report year: 2008

Grassmann geometries and integrable systems
Publication: Research › Conference article – Annual report year: 2007

K-symmetric AKS systems and flat immersions in spheres
Publication: Research - peer-review › Journal article – Annual report year: 2008

Loop group decompositions in almost split real forms and applications to soliton theory and geometry
Publication: Research - peer-review › Journal article – Annual report year: 2008

Results related to generalizations of Hilbert's non-immersibility theorem for the hyperbolic plane
Publication: Research - peer-review › Journal article – Annual report year: 2008

An application of a 3-involution loop group to reflective submanifolds
Publication: Research › Article in proceedings – Annual report year: 2007

Curved flats, pluriharmonic maps and constant curvature immersions into pseudo-Riemannian space forms
Publication: Research - peer-review › Journal article – Annual report year: 2007
Grassmann geometries in infinite dimensional homogeneous spaces and an application to reflective submanifolds
Publication: Research - peer-review › Journal article – Annual report year: 2007

Flat submanifolds of a sphere and integrable systems
Publication: Research › Ph.D. thesis – Annual report year: 2006

Finite type isometric immersions of constant curvature submanifolds
Publication: Research › Article in proceedings – Annual report year: 2004

Projects:

Surface Design and Rationalization for Robotic Hotwire and Hotblade Cutting Techniques
Project: PhD

Digital Factory
Project

BladeRunner - Applied Geometry
Project: PhD

Symmetry Techniques in Differential Geometry
Project