

Michael Robert Jimenez

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American citizen

Polish citizen

D.o.B.: 2. June 1990

Address:

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EDUCATION

Universität für angewandte Kunst Wien, Vienna, Austria

October 2020 –

M.A. in [Transdisciplinary Art](#)

Technische Universität Wien, Vienna, Austria

October 2016 –

Ph.D. in [Mathematics](#)

Third-party projects (October 2019 – December 2020)

ESR within [ARCADES Network](#), Marie Skłodowska-Curie grant N° 675789

(October 2016 – September 2019)

Supervisor: [Prof. H. Pottmann](#) (October 2016 – July 2020)

Coursework Overview: Geometric Data Processing, Introduction to Optimization

Arts Coursework Overview: Material-Based Art Project, 3-Dimensional Design, Figure Drawing

Universität Bonn, Bonn, Germany

October 2012 – September 2015

M.Sc. in [Mathematics](#)

Weighted GPA: 2.1 (81%)

Coursework Overview: Complex Geometry, Symplectic Geometry, Global Analysis of Riemann Surfaces, Ricci Flow, Differential Topology, Hyperbolic Groups, Algebraic Topology, Characteristic Classes, Homological Algebra

Thesis with [Prof. C. F. Bödigheimer](#): *From Green's Functions to Chord Spaces, for the Punctured 2-Disk*

Princeton University, Princeton, NJ, U.S.A.

September 2008 – June 2012

A.B. in [Mathematics](#)

Dept. GPA: 3.35 of 4 (B+)

Coursework Overview: Differential Geometry, Riemannian Geometry, Modern Classical Dynamics, Advanced Classical Mechanics, Algebra with Galois Theory, Mathematical Methods in Physics

Arts Coursework Overview: Advanced Studios in Sculpture, Painting, and Drawing

Thesis with [Asst. Prof. G. Holzegel](#): *(In)completeness in Riemannian, and Lorentzian, Geometries via the Calculus of Variations*

PUBLICATIONS & PREPRINTS

Jimenez, M.R., *Note on Surfaces of Revolution with an Affine-Linear Relation between their Curvature Radii*, [arXiv preprint](#).

Jimenez, M.R., Müller, C. & Pottmann, H., *Discretizations of Surfaces with Constant Ratio of Principal Curvatures*, Discrete Comput. Geom. (2019). doi:[10.1007/s00454-019-00098-7](#)

WORK EXPERIENCE

SAP Service & Support Centre, Computer Analyst (Support Engineer), Dublin, Ireland

14 March – 13 September 2016

Worked on insurance software development

CONFERENCES

XXI. Generative Art Conference, Verona, Italy

18 – 20 December 2018

Talk with María Lara Miró: *From Lines to Circles: Rethinking Design Coordinates*

Solid and Physical Modeling 2018, Bilbao, Spain

11 – 13 June 2018

Poster: *Interactive Geometric Design: Constraints Imposed by Function and Fabrication*

Geometry Workshop in Obergurgl 2017, Obergurgl, Austria

21 – 26 September 2017

Talk: *Discrete Weingarten Surfaces from Strips: Expressed in At-Most-Quadratic Constraints*

ACADEMIC EXPERIENCE

ARCADES Events, with information at <http://arcades-network.eu/>

Learning Week III , INRIA, Sophia Antipolis, France	27 – 29 March 2019
Second Software & Industrial Workshop , Cambridge, UK	28 – 31 January 2019
Doctoral School II & ESR Days , Barcelona, Spain	3 – 7 September 2018
Learning Week II , INRIA, Sophia Antipolis, France	19 – 23 March 2018
First Software & Industrial Workshop , Athens, Greece	27 November – 1 December 2017
Learning Week I , INRIA, Sophia Antipolis, France	3 – 7 April 2017
Doctoral School I , Oslo, Norway	28 November – 2 December 2016

BMS/SFB Summer School: Discrete Differential Geometry, TU Berlin, Berlin, Germany 9 – 20 September 2013
Lectures by: Prof. V. Bazhanov, D. Cremers, V. Fock, G. Kutyniok, F. Luo, U. Pinkall, W. K. Schief, Y. Suris, S. Tabachnikov, and M. Wardetzky
with lectures, and information, at <https://www.discretization.de/events/16/>

Lab Assistant, Civil Engineering Department, Princeton University June – August 2012
For **Prof. Michael Littman**, regarding his course “Engineering in the Modern World”
— Designed a couple of interactive demonstrations of magnetism and telegraphy for first-year students
— Systematized the restoration of a vintage PDP 8/L computer, including both replacing hardware on its flip-chip modules, and debugging memory reading/writing

NSF/RTG Summer Program in Analysis and Geometry, Princeton University 6 – 22 July 2011
Lectures by: Asst. Prof. G. Holzegel, Prof. E. Stein, L. Pierce, and A. Ionescu
with (resp.) lectures: “The Geometry of General Relativity”, “A quick introduction to harmonic analysis in \mathbf{R}^d ”, “Discrete Analogues in Harmonic Analysis”, “Harmonic Analysis and Nonlinear Dispersive Equations”

Research Assistant, Physics Department, Princeton University June – August 2011
For **Prof. Suzanne Staggs**
— Calculated, with Python, estimate Mueller matrices for an ABS half-wave plate
— Learned about linear optics, Jones matrices, and Mueller matrices

Lab Assistant, Civil Engineering Department, Princeton University June – August 2010
For **Prof. Michael Littman**, regarding his course “Engineering in the Modern World”
— Developed six hands-on laboratory demonstrations for his course meant for first-year students
— Wrote accompanying intuitive descriptions of the Physics-related processes exemplified by the demonstrations
— Constructed guidelines for use in these laboratory exercises as to show how these processes are involved in radio transmission and reception

Research Assistant, Astrophysics Department, Princeton University June – August 2009
For **Prof. Anatoly Spitkovsky**, Lorenzo Sironi (GS)
Abstract Title: *Accelerating Particle Acceleration in Shocks*
— Worked with FORTRAN code to run particle-in-cell simulations of particle acceleration in plasma
— Coded in IDL in order to analysis and interpret the output data

UNIVERSITY ACTIVITIES

Universität Bonn Fachbibliothek Mathematik Studentische Hilfskraft (Student Assistant), April 2013 – September 2015
Bonn, Germany
— Managed, weekly, the front desk of the Mathematics library

Max Planck Institute for Mathematics Wissenschaftliche Hilfskraft (Scientific Assistant), March 2013 – June 2015
Bonn, Germany
— \LaTeX -ed several chapters for the fourth edition of Prof. Dale Husemöller’s textbook *Fibre Bundles*, under supervision of Dr. Alexander Weisse
— \LaTeX -ed a few other smaller papers/files for Prof. Husemöller and Dr. Weisse

Princeton Learning Cooperative Tutor, Princeton, NJ, U.S.A. October 2011 – January 2012
— Tutored a local high school student in abstract Algebra, once a week for several months

Princeton UNIX Users’ Group (PUG) President (2009 – 2011), *Treasurer* (2011 – 2012), May 2009 – May 2012
Princeton University
— Promoted student use of *nix on campus
— Managed group’s listserv

Freshmen Scholars Institute Tutor, Princeton University July – August 2011
— Engaged selected incoming freshmen with elementary Number Theory and Probability
— Aided tutees with homework sets, three nights a week for six weeks

UNIVERSITY ACCOMPLISHMENTS

- Princeton Class of 2012 Class Jacket Designer**, Princeton University 12 December 2011
Winner of my class's design competition for its traditional senior-class jacket
Mentioned in the Princeton Alumni Weekly, page 4 (PDF page 6),
<https://mrj.at/files/PAWReunionsGuide2012.pdf>
- Nassau Literature Review Contributor to Winter 2010 issue**, Princeton University 4 December 2010
Selected to have one of my sculptures featured in the [Nassau Literature Review](#)
Electronic copy, see page 70 (PDF page 71), <https://mrj.at/files/NassLit-2010-winter.pdf>
- Princeton Class of 2012 Pre-Rade 2009 Shirt Designer**, Princeton University 27 July 2009
Winner of my class's design competition for its t-shirt at the Princeton Pre-Rade, 13 September 2009

SKILLS

Computer: Proficient in using \LaTeX , Linux, GIMP, Inkscape, most office-suite programs.
Languages: English (native), German (ca. level C1).