GUSTAVE BILLON

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17 rue de Lausanne ⋄ 67000, Strasbourg

RESEARCH INTERSESTS

Geometry, topology. Particularly, jet bundles, deformations of geometric structures on Riemann surfaces, Cartan geometries, (G, X)-structures, holomorphic foliations.

EXPERIENCE

Université de Strasbourg, IRMA September 2023 - Present
Postdoc *Strasbourg, France*

· Supervisor : Carlo Gasbarri

EDUCATION

Université Côte d'Azur, Laboratoire J.A. Dieudonné September 2020 - August 2023
PhD *Nice, France*

· Supervisor : Sorin Dumitrescu
· Title : Deformations of Branched Projective Structures on Riemann Surfaces

Université Côte d'Azur, Laboratoire J.A. Dieudonné April 2020 - June 2020
Research Internship *Nice, France*

· Supervisor : Sorin Dumitrescu
· Title : About Holomorphic Projective Structures

Université de Rennes 1 September 2019 - June 2020
Master 2 in Fundamental Mathematics *Rennes, France*

Mathematisches Institut der Universität Heidelberg April 2019 - July 2019
Research Internship *Heidelberg, Germany*

· Internship at the Differential Geometry Research Group
· Study of pseudomodular groups of isometries of the hyperbolic plane

École polytechnique September 2016 - August 2020
Master of Science level *Palaiseau, France*

· Specialization Program in Fundamental Mathematics
· Minors : Applied Mathematics, Informatics

PAPERS

Prepublications

· *Moduli Spaces of Marked Branched Projective Structures on Surfaces.* 2022.
URL : https://hal.science/hal-03686133v2.
· *Branched Projective Structures and Bundles of Projective Frames on Surfaces.* 2023.
URL : https://hal.science/hal-04246665v1.

TALKS

PhD Colloquium of LJAD April 2021
Projective Structures and Uniformization of Riemann Surfaces *Université Côte d'Azur, Nice*

Workshop : Geometric Structures and Foliations October 2021
Branched Projective Structures and Branched Projective Frame Bundles *CIRM, Marseille*

LJAD PhD Seminar February 2022
Branched Projective structures on Riemann Surfaces *Université Côte d'Azur, Nice*

Tassili Sunday Maths Seminar November 2022
Deformation of Holomorphic Branched Projective Structures on Riemann Surfaces *Online*

Conference : Algebraic Geometry and Complex Geometry November 2022
The Moduli Space of Marked Branched Projective Structures on Riemann Surfaces *CIRM, Marseille*

Seminar of Analytic Geometry February 2023
The Moduli Space of Marked Branched Projective Structures on Riemann Surfaces *IRMAR, Rennes*

Workshop : ANR Geometry and Analysis in the Pseudo-Riemannian Setting February 2023
The Moduli Space of Marked Branched Projective Structures on Riemann Surfaces *LJAD, Nice*

Seminar Dynamical Systems and Geometry March 2023
The Moduli Space of Marked Branched Projective Structures *LAREMA, Angers*

Seminar of Geometry, Groups and Dynamics April 2023
The Moduli Space of Marked Branched Projective Structures on Riemann Surfaces *UMPA, ENS de Lyon*

Mercator Workshop July 2023
Moduli Spaces of Marked Branched Projective Structures on Riemann Surfaces *Heidelberg University*

Seminar of Geometry October 2023
Moduli Spaces of Marked Branched Projective Structures on Riemann Surfaces *IRMA, Strasbourg*

TEACHING EXPERIENCE

Teaching Assistant September 2020 - August 2023
Université Côte d'Azur

- SPUM11 : Math Basics
- SPUM13 : Math Deepening
- SPES11 : Complements of Mathematics

Teaching Assistant September 2023 - Present
Université de Strasbourg

- Algèbre S3 : Advanced Linear Algebra

ORGANIZATIONAL EXPERIENCE

- Co-organizer with Dahmane Dechicha and Thanos Vasileiadis of the 2022 PhD Colloquium of LJAD

· Organizer of the working group "Deformations of Complex Structures", 2022

OTHER WORK EXPERIENCE

Sysnav July 2018 - August 2018
Business Internship *Vernon, France*

· Sysnav is a "pure player" in accurate positioning solutions in complex environments
· Operational research project on the merging of inertial and GPS trajectories

Air Force of the Gendarmerie Nationale December 2016 - March 2017
Officer Cadet *Villacoublay, France*

· Various missions with police forces
· Production of a web application (document sharing platform) for the unit

TECHNICAL STRENGTHS

Languages	French (native), English (fluent), German (competent)
Computer languages	HTML / CSS, Javascript, PHP, Python, Java, Caml, C++