

# (Invited Talk) Triangulations in CGAL: To Non-Euclidean Spaces... and Beyond!

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## Abstract

The talk will review some of the basic ideas underlying the design of the classic triangulation packages in CGAL. Then it will present more recent work on the computation of Delaunay triangulations of some flat tori and of the Bolza surface, and show how the CGAL basic ideas could be extended. Triangulations are known to have many applications. The talk will exhibit concrete uses of the various CGAL triangulation packages. Finally, future work and its motivation will be mentioned.

## Biography

Former student of the École Normale Supérieure in Paris, holder of an Agrégation in Mathematics and a PhD in Computer Science (“Towards dynamic randomized algorithms in computational geometry”). Managing Editor of JoCG (the free and gratis Journal of Computational Geometry), PC Chair of SoCG’08, Chair of the Computational Geometry Steering Committee since 2016. Monique Teillaud has been involved in the CGAL project since the end of the 90’s. She has co-authored several packages in the library. Her research has focused on computing triangulations in non-Euclidean spaces for more than ten years.