



ID de Contribution: 8

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## Moduli of spherical surfaces and their representation spaces

*jeudi 5 juin 2025 16:00 (1 heure)*

In this talk we discuss certain topological properties of the moduli space  $\mathcal{MS}_{\sqrt{\langle \vartheta \rangle}_{g,n}}$  of spherical surfaces, namely surfaces of genus  $g$  endowed with a metric of curvature 1 with  $n$  conical singularities of angles  $2\pi\vartheta_1, \dots, 2\pi\vartheta_n$ , and highlight how different they are from moduli spaces of surfaces of curvature  $-1$ . We show that their local structure can be studied through certain decorated representation spaces, which are also object of our investigation.

Concerning the global topological properties of  $\mathcal{MS}_{\sqrt{\langle \vartheta \rangle}_{g,n}}$ , we show that these moduli spaces are homotopy equivalent to finite cell complexes and that their connected components are non-compact (with very few exceptions). Time permitting, we will describe some explicit example.

This is joint work with Dmitri Panov (KCL).

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