

# Decomposing the moduli space of decorated convex projective structures on non-compact surfaces

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In 1988 Epstein and Penner devise a canonical cell decomposition of a decorated hyperbolic surface using the convex hull construction. Penner goes on and shows that the convex hull construction induces a cell decomposition of decorated Teichmüller space. Later, in 2015, Cooper and Long generalise the convex hull construction to surfaces with convex projective structure of finite area.

In this talk we generalise Penner's result by showing that Cooper and Long's cell decomposition induces a cell decomposition of the moduli space of decorated real convex projective structures on a given surface. Furthermore, we will discuss many open questions concerning this cell decomposition.

