



Coloquio IMAFI

Instituto de Matemática y Física

Universidad de Talca

Camino Lircay S/N, Campus Norte, Talca-Chile

Limit points in the Deligne-Mumford moduli space.

Victor González Aguilera^{*†}

Departamento de Matemática. Universidad Técnica Federico
Santa María, Valparaíso, Chile.

Abstract

Let $\widehat{\mathcal{M}}_g$ be the Deligne-Mumford compactification of the moduli space of smooth, complete, connected curves of genus $g \geq 2$ over \mathbb{C} . In this talk, we present some results that allow us to describe the topological type of the limit points of the singular locus of $\widehat{\mathcal{M}}_g$. We will present our method in some explicit examples.

2010 Mathematics Subject Classification: Primary 32G15; Secondary 14H10. *Key words:* Moduli space, stratification, noded Riemann surfaces.

References

- [1] 1. Bers, L. *On spaces of Riemann surfaces with nodes* Bulletin of the AMS. **80**, Number 6, 1219-1222, 1974.
- [2] 3. Costa, A. F. and González-Aguilera, V. *Limits of equisymmetric 1-complex dimensional families of Riemann surfaces* Mathematica Scandinavica **121**, 26-48, 2017.
- [3] 4. Deligne, P. and Mumford, D. *The irreducibility of the space of curves*. Publications Mathématiques de L'I.H.E.S. **36**, 75-109, 1965.
- [4] 5. Díaz, R. and González-Aguilera, V. *Limit points of the branched locus of the moduli space of Riemann surfaces*. arXiv:1703.07328 v.1 [math.AG]. to appear in Advances in Geometry.

^{*}The author was partially supported by Project PIA, ACT 1415

[†]e-mail: victor.gonzalez@usm.cl