

# The Bruce-Roberts Tjurina number of holomorphic 1-forms along complex analytic varieties

VICTOR ARTURO MARTINEZ LEON \* <sup>1</sup>

<sup>1</sup>*Universidade Federal da Integração Latino-Americana (UNILA)*

## Abstract

We introduce the notion of the Bruce-Roberts Tjurina number for holomorphic 1-forms relative to a pair  $(X, V)$  of complex analytic subvarieties. When the pair  $(X, V)$  consists of isolated complex analytic hypersurfaces, we prove that the Bruce-Roberts Tjurina number is related to the Bruce-Roberts number, the Tjurina number of the 1-form with respect to  $V$  and the Tjurina number of  $X$ , among other invariants. As an application, we present a quasihomogeneity result for germs of holomorphic foliations in complex dimension two. Joint work with Pedro Barbosa and Arturo Fernández-Pérez.

## References

- [1] Pedro Barbosa and Arturo Fernández-Pérez and Víctor León, *The Bruce-Roberts Tjurina number of holomorphic 1-forms along complex analytic varieties*, Arxiv (2024), <https://arxiv.org/abs/2409.19814>.

---

\*victor.leon@unila.edu.br