

# THE INFLUENCE OF STÖHR-VOLOCH THEORY ON THE STUDY OF PLANE ARCS

FERNANDO TORRES

Following [2], [1] (see also [4, §5]), we plan to survey applications of Stöhr-Voloch Theory [3] to the study of plane arcs. Among the results we have the following.

- Irreducible components of the envelop of plane arcs are quite pathological geometric objects for the 2-uple embedding;
- Certain  $(k, d)$ -arcs are related to Frobenius non-classical plane curves.

## REFERENCES

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- [3] K.O. Stöhr and J.F. Voloch, *Weierstrass points and curves over finite fields*, Proc. London Math. Soc., Vol. 52 (1986) pp. 1–19.
- [4] F. Torres, “The approach of Stöhr-Voloch to the Hasse-Weil bound with applications to optimal curves and plane arcs”, Lecture Notes (Essen 1997 - Perugia 1998); available at the location [www.ime.unicamp.br/~ftorres](http://www.ime.unicamp.br/~ftorres) (also at arXiv:math.AG/0011091).

IMECC-UNICAMP, Cx. P. 6065, CAMPINAS, 13083-970-SP, BRAZIL

*E-mail address:* [ftorres@ime.unicamp.br](mailto:ftorres@ime.unicamp.br)