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Moduli for stable marked trees of projective lines. (English) Zbl 0723.14020
Math. Ann. 291, No. 4, 643-662 (1991).

The moduli theory for stable n -pointed trees of projective lines as developed by *L. Gerritzen*, the author and *M. van der Put* [*Indagationes Math.* 50, No.2, 131-163 (1988; [Zbl 0698.14019](#))] is extended to the case of an infinite set M of markings. This is the setting which is relevant for the uniformization theory of stable Riemann surfaces [cf. *L. Gerritzen* and the author, *J. Reine Angew. Math.* 389, 190-208 (1988; [Zbl 0639.30040](#))].

Although the final results are formally analogous to the case of a finite set of markings, new technical tools had to be developed even to state the results: since neither the classified objects nor (in general) the moduli spaces are varieties (or schemes), one has to work in the category of provarieties (or projective limits of varieties). We also need new definitions of trees (not relying on edges or on topological properties), of trees of projective lines, and of intersection graphs.

The main result states the existence of fine moduli spaces for stable M -marked trees of projective lines, and for trees where the M marking is equivariant with respect to a given group action.

Reviewer: [F.Herrlich \(Bochum\)](#)

MSC:

- [14H10](#) Families, moduli of curves (algebraic)
- [14D22](#) Fine and coarse moduli spaces
- [14A20](#) Generalizations (algebraic spaces, stacks)

Cited in **1** Review
Cited in **2** Documents

Keywords:

[n-pointed trees of projective lines](#); [uniformization theory of stable Riemann surfaces](#); [markings](#); [provarieties](#); [fine moduli spaces](#)

Full Text: [DOI](#) [EuDML](#)

References:

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- GH Gerritzen, L., Herrlich, F.: The extended Schottky space. *J. Reine Angew. Math.*389, 190-208 (1988) · [Zbl 0639.30040](#)
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