









Note the Teichmüller space of a 3-sided polygon consists of a single point. Hence we have the following corollary.

**Corollary 1.4.** *Let  $G = ($*

On the other hand,

$\dim_{\mathbb{R}}$

ON THE TEICHM









ON THE TEICHM







*Proof.*

Let  $F$





Let  $A_j$  (resp.  $\tilde{A}_j$ ),  $1 \leq j$

ON THE TEICHM

Obviously  $(G_n, \nu_n)$  satisfies conditions (i), (ii) and (iii) in Section.1. The result in the previous section implies that there is a circle pattern  $\mathcal{P}_n$  in  $\hat{\mathbb{C}}$  realizing  $(G_n, \nu_n)$ . It is unique up to Möbius transformations. We partially normalize this circle pattern such that the disk associated with  $\nu_1$  is  $D(\nu_1) = \hat{\mathbb{C}} \setminus \{|z| < 1\}$







and hence by logarithmic differentiation with respect to the parameter  $\rho$  :

$$\frac{d^{\rho} W}{d\rho}$$



