104. Relations among Topologies on Riemann Surfaces. III

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Proposition 3. *$\{p_n^1\}$ and $\{p_n^2\}$ determine the same K-Martin's point relative to ${}_l\mathfrak{D}_\infty$ for every l.*

Domain ${}_l\Omega$ and Ω. Put $\mathfrak{D}^*=\mathfrak{R}-\tilde{s}_0-\sum_{n=1}^{\infty}(s_n^1+s_n^2+s_n^3+\tilde{s}_n+R_n-\Lambda_n)$ $(={}_1\mathfrak{D}_\infty)$. Let Γ_n' be a simply connected domain containing R_n such that $\partial\Gamma_n'$ intersects Λ_n such that

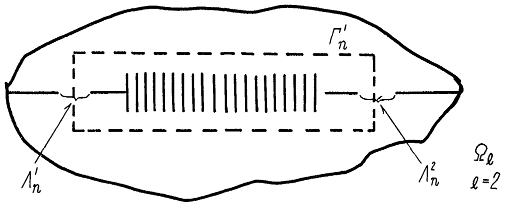
$$\Gamma_n': \alpha-0.75\leqq Re\ z\leqq\alpha+0.75,\ \frac{6}{2^n}-\frac{6}{2^{n+3}}\leqq Im\ z\leqq\frac{6}{2^n}-\frac{6}{2^{n+3}},$$

where $\alpha=1.5$ or 4.5 according as n is odd or even.

Let T_n be a system of vertical segments in R_n such that

$$T_n=\sum_{i=0}^{k}t_n^i,$$

$$t_n^i: Re\ z=\alpha+\frac{i}{k},\ \frac{6}{2^n}-\frac{6}{2^{n+4}}\leqq Im\ z\leqq\frac{6}{2^n}+\frac{6}{2^{n+4}},$$



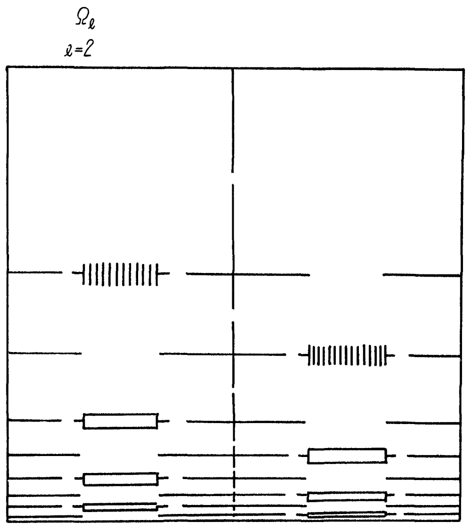


Fig. 5