analogous fashion but lead to very messy formulae, which furthermore give no additional stable information.

4. Finally a word concerning the proof of Theorem I. It is a known result that when $X=\text{point}$, then $KO\{S(E)\}=KO(S^{8n})$ is generated by 1 and y. (See [2]). Hence (2.1) proves the first statement of Theorem I whenever E is trivial. Now an inductive Meyer-Vietoris argument yields the general case.

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A CONNECTION BETWEEN TAUBERIAN THEOREMS AND NORMAL FUNCTIONS

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The purpose of this note is to point out that certain Tauberian theorems follow immediately from some recent research of Lehto-Virtanen and Bagemihl-Seidel.

Let D denote the open unit disk, let C denote the unit circumference, and let $\rho(z_1, z_2)$ denote the non-Euclidean hyperbolic distance between the points z_1 and z_2 in D.

THEOREM. *Suppose that* $f(z)=\sum a_n z^n$ *and that* $n|a_n| \leqq M$ $(n=1, 2, \cdots)$ *for some constant* M. *Further, suppose that* $\{z_n\}$ *is a sequence of points in* D *converging to a point* ζ *in* C *with the property that* $\rho(z_n, z_{n+1})\to 0$ *as* $n\to\infty$. *Then, if* $f(z_n)\to c$ *as* $n\to\infty$, *the series* $\sum a_n\zeta^n$ *converges to the sum* c.

PROOF. The hypothesis implies that $|f'(z)|\leqq M/(1-|z|)$. Consequently, $\rho(f(z))|dz|\leqq 2M d\sigma(z)$ holds for all z in D where $\rho(f(z)) =|f'(z)|/(1+|f(z)|^2)$ denotes the spherical derivative of f and $d\sigma(z)$

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$= |dz|/(1-|z|^2)$ denotes the hyperbolic element of length. From this we infer at once (see [**2**, Theorem 3]) that f is normal in the sense of Lehto and Virtanen; and, invoking a theorem of Bagemihl and Seidel [**1**, Theorem 2], we conclude that f has the angular limit c at ζ. The theorem now follows from Littlewood's Tauberian theorem for radial approach.

The theorem contains the Hardy-Littlewood Tauberian theorem for curvilinear approach as a special case.

It is now obvious that one can formulate and prove a number of Tauberian theorems by making use of various known properties of normal functions. Conversely, known Tauberian theorems will sometimes suggest properties of normal functions. For example, the fact that a holomorphic function in D having a finite Dirichlet integral is normal yields at once an extension of a familiar Tauberian theorem.

The author will discuss these matters in more detail elsewhere.

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