results for operators not assumed positive by means of a reduction procedure [4] and the present theorems.

We are indebted to the work of Eberhard Hopf for suggesting that a resolution of this type is possible.

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# TCHEBYCHEFF QUADRATURE IS POSSIBLE ON THE INFINITE INTERVAL[1]

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The purpose of this announcement is to state a theorem on Tchebycheff quadrature which answers a question posed in [1], and to discuss the proof. Complete details will appear elsewhere.

## 1. Tchebycheff quadrature.

Definition 1.1. A unit mass distribution on $(-\infty, \infty)$ possessing moments of all positive integer order will be said to belong to class $D$.

Definition 1.2. Let $\psi$ be an element of $D$ and $n$ a positive integer. We refer to the equations

$$\frac{1}{n}\sum_{i=1}^{n} x_{i,n}^{k} = \int x^k d\psi, \qquad k = 1, \cdots, n$$

as the equations $(\psi, n)$. These equations admit a solution $x_{1,n}, \cdots, x_{n,n}$ which is unique up to permutation of the first index.

Definition 1.3. $T$ quadrature is said to be possible for an element $\psi$ of $D$ if equations $(\psi, n)$ have real solutions for every positive integer $n$. If $T$ quadrature is possible for $\psi$ it is called a $T$ distribution.

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