

---

**ELLIOTT LIEB**, Princeton University

*Strichartz Inequality for Orthonormal Functions*

We prove a Strichartz inequality for a system of orthonormal functions, with an optimal behavior of the constant in the limit of a large number of functions. The estimate generalizes the usual Strichartz inequality, in the same fashion as the Lieb-Thirring inequality generalizes the Sobolev inequality. Similarly, it generalizes the norms of Riesz and Bessel potentials, which will be recalled in the talk. As an application, we consider the Schroedinger equation in a time-dependent potential and we show the existence of the wave operator in the strong sense of a finite Schatten space norm. (joint work with R. Frank, M. Lewin and R. Seiringer)