On Convergence of Rearranged Fourier Series

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This talk will investigate a conjecture of Ulyanov which asks if, for any continuous function on the torus, there exists a rearrangement (i.e. bijection from Z to Z) such that the rearranged partial sums of the Fourier series converges uniformly to the function. We give some equivalences of this conjecture in terms of convergence of related multiplication operators in the strong or weak operator topology, and some interesting partial results related to Ulyanov's conjecture.