1077-42-477   **Shigehiko Kuratsubo*** (`kuratubo@cc.hirosaki-u.ac.jp`), Hirono 1-17-6, Hirosaki-shi, Aomori-ken , Japan. *A relation between multiple Fourier series and lattice point problems.*

Lattice point problems are the branch of analytic number theory which is concerned with the number of integer points. These problems have a long history and very deep accumulations since E. Landau, J. G. Van der Corput, G. Voronoi and G. H. Hardy. Especially the researches of Czechoslovakian mathematician B. Novak (1938-2003) are very important. We are aiming to point out intrinsic relationship between lattice point problems and the convergence problems of multiple Fourier series. We will see a strong relation between these. The strongest motivation of this study was two preprints by M. Taylor. (Received September 03, 2011)