Janpou Nee* (jpnee@ctu.edu.tw), General Education Center, ChienKuo Technology University, Changhua, 500, Taiwan. *A counter example of Rauch’s conjecture on a symmetry domain.

The hot spot conjecture was proposed by J. Rauch in 1975. The conjecture suggests that the maximum of the solution of heat equation with Neumann boundary condition should occurs at the boundary. Later in 1999, Burdzy and Werner gave a counter example of this problem on a domain with two holes. The conjecture then revises to symmetry domain. However, a counter example was found on a symmetry domain. To support the conjecture, condition other then the geometry of the domain is needed. (Received August 17, 2015)