The minimization problem：

equals：Euler-Lagrange equation:with the Neumann boundary condition on(N is the outward normal to ).

Prove: Assume u is the answer of the minimization problem, ,,

Because u is the answer of the minimization problem,we have



So

 (1)

 (2)

If we consider equation (1) and equation (2),we can have



Because the Neumann boundary condition,the equation above will transform into the following form.



From the randomicity of u, we can get the Euler-Lagrange equation 