1096-35-1872 **Xiaoyi Zhang*** (xiaozhang@math.uiowa.edu), **Monica Visan** and **Rowan Killip**. *Global well-posedness and scattering for focusing cubic NLS on the exterior of strictly convex obstacle in three dimensions.*

We consider the cubic focusing NLS in the exterior of strictly convex obstacle in three dimensions. We prove that even the ground state is not achieved in the obstacle case, the threshold for the global existence and scattering is the same as for the whole space problem. Specifically we prove that under the condition that $E(u)M(u) < E(Q)M(Q)$ and $\|\nabla u_0\|_2\|u_0\|_2 < \|\nabla Q\|_2\|Q\|_2$, the corresponding solution to the initial boundary value problem with Dirichlet boundary condition exists globally and scatters. Here, $Q(x)$ is the ground state of focusing cubic NLS in whole space case. (Received September 16, 2013)