1147-30-590   **Gou Nakamura*** (`gou@aitech.ac.jp`), 1247 Yakusa-cho, Toyota, 470-0392, Japan. *Actions of some mapping classes on extremal surfaces of genus two.* Preliminary report.

Let $\mathcal{M}_g$ be the moduli space of closed Riemann surfaces of genus $g \geq 2$. The maximal injectivity radius function $r_{\max}$ on $\mathcal{M}_g$ is the function which assigns to each surface its maximal injectivity radius. We call a surface in $\mathcal{M}_g$ extremal if it attains the maximum of $r_{\max}$. It is known that there exist 9 extremal surfaces of genus two up to isomorphism. In this talk we give a model of the Teichmüller space $\mathcal{T}_2$ of genus two in $\mathbb{R}^7$ by using hyperbolic octagons, and give examples of mapping classes acting on $\mathcal{T}_2$ in terms of 7 variables. Investigating the images of marked extremal surfaces under these mapping classes, we estimate a bound of distances between extremal surfaces in $\mathcal{M}_2$. (Received January 26, 2019)