数論セミナー

日時：2022 年 4 月 15 日（金）16：40　〜
場所：Zoom 開催
講演者：安冨　真一　(東邦大学)
講演題目：Billiards in a circle with trajectories circumscribing a triangle

　　We consider a bar billiards problem for a triangle in the unit circle. For the point on the unit circle, we construct a line from it in a counterclockwise direction tangent to the triangle, and examine a map corresponding to the point of intersection with the circle. For the rotation number ρ of this map, we give $\frac{1}{3} \leq \rho < \frac{1}{2}$ and necessary and sufficient conditions for $\rho = \frac{1}{3}$, which is related to an ellipse. We give partial results with respect to $\rho = \frac{2}{5}$. These results yield elementary geometry results. This is joint work with Takeo Noda in Toho University.