1147-55-660   **Yongju Bae**, **Scott Carter** and **Byeorhi Kim*** (`kbrdooly@naver.com`). *Relation between quandle extensions and group extensions.*

In 2003, J. S. Carter, M. Elhamdadi, M. A. Nikiforou and M. Saito introduced the theory of quandle extension by a quandle 2-cocycle, and many researchers have been studying properties of quandle extensions. According to D. Joyce and S. Matveev, every quandle can be represent by using its automorphism group, so, we have a sequence of groups from a quandle extension. In this talk, we begin studying the mod-2 quandle extension of the 4-elements tetrahedral quandle that is defined by a quandle cocycle in terms of the inner automorphism groups of each. We also introduce cocycle formula between a group 2-cocycle and a quandle 2-cocycle. This is a joint work with Y. Bae and J. S. Carter. (Received January 28, 2019)

1