1009-17-130   **Hiroyuki Yamane*** (`yamane@math.sci.osaka-u.ac.jp`), Osaka Univ., Graduate School of, Information Science and Technology, 560-0043 Osaka, Toyonaka, Japan. *Elliptic Lie algebras and superalgebras with rank more than or equal to two.*

K. Saito introduced the notion of the extended affine root systems (EARA). He called the EARAs with nullity two the elliptic root systems (ERS). K. Saito and D. Yoshii gave three kinds of presentations of the Lie algebras associated with the (simply-laced) ERSs and called them the (simply-laced) elliptic Lie algebras. The presentations are: 1) the presentation by using Borcherds lattice vertex algebras 2) the presentation by using (affine-type) Heisenberg Lie algebras 3) the presentation by using Serre-type defining relations. In this talk, we generalize their result 3) for ERSs with rank more than or equal to two. Namely, by using a finite number of defining relations, we give a (universal) family of Lie algebras (resp. superalgebras) associated with the reduced (resp. non-reduced) ERSs with rank more than or equal to two. (Received August 11, 2005)