

## Appendix: On some Gelfand pairs and commutative association schemes<sup>★</sup>

Eiichi Bannai · Hajime Tanaka

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**Abstract.** This paper is Appendix of the paper of T. Ceccherini-Silberstein, F. Scarabotti and F. Tolli [8].

We pay close attention on a special condition related to Gelfand pairs. Namely, we call a finite group  $G$  and its automorphism  $\sigma$  satisfy Condition (★) if the following condition is satisfied: if for  $x, y \in G$ ,  $x \cdot x^{-\sigma}$  and  $y \cdot y^{-\sigma}$  are conjugate in  $G$ , then they are conjugate in  $K = C_G(\sigma)$ . The main purpose of the note was to study the meanings of this condition, as well as showing many examples of  $G$  and  $\sigma$  which do (or do not) satisfy Condition (★).

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E. BANNAI

Department of Mathematics, Shanghai Jiao Tong University, Shanghai 200240, China  
(e-mail: bannai@sjtu.edu.cn, bannai@math.kyushu-u.ac.jp)

H. TANAKA

Research Center for Pure and Applied Mathematics, Graduate School of Information Sciences,  
Tohoku University, Sendai 980-8579, Japan  
(e-mail: htanaka@m.tohoku.ac.jp)