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Jon-Lark Kim* (jlkim@sogang.ac.kr), Department of Math (Building R 1401), Sogang University, 04107, South Korea. *Recent results on Choi Seok-Jeong's orthogonal Latin squares.*

The concept of orthogonal Latin squares was known to be found first by Euler. However, Choi Seok-Jeong, a Korean mathematician, studied Latin squares at least 60 years earlier than Euler. He constructed a pair of orthogonal Latin squares of order 9 in his book called Koo-Soo-Ryak. These two orthogonal non-diagonal Latin squares produce a magic square of order 9. In this talk, we introduce some new recent results on Choi Seok-Jeong's orthogonal Latin squares such as their generalizations and other interesting properties. We also describe how to construct error-correcting codes from orthogonal Latin squares. (Received September 12, 2019)