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**Trace Function Representation of Hall's Sextic
Residue Sequences of Period $p \equiv 7 \pmod{8}$ ***

Jeong-Heon Kim*, Guang Gong*, & Hong-Yeop Song*

Abstract We determine the trace function representation of Hall's sextic residue sequences of period $p \equiv 7 \pmod{8}$. Current status of a conjecture regarding the existence of Hadamard sequences is briefly discussed.

Keywords Hall's Sextic Residue Difference Sets, PN Sequences, Cyclic Hadamard Difference Sets, Trace Functions.