1020-94-20 **Patrick Sole*** (`sole@essi.fr`), ESSI, route des Colles, 06903 Sophia Antipolis, France. *Duadic codes at length.*

Duadic codes are a class of cyclic codes that generalizes quadratic residue codes from prime to composite lengths. For every prime power q, we characterize integers n such that there is a duadic code of length n over $GF(q^2)$ with an Hermitian self-dual parity-check extension. By dint of analytic number theory, we derive asymptotic estimates for the number of such n as well as for the number of lengths for which duadic codes exist. These results are generalized to the abelian case. This is joint work with Lilibeth Dicuangco and Pieter Moree. If time permits we shall mention a recursive construction of duadic codes that occur in relation with so called "very odd sequences" (joint work with Pieter Moree). (Received July 05, 2006)