1056-05-838   **Lale Özkahya*** (`ozkahya@illinois.edu`). *On extremal cycle-free subgraphs of the hypercube.*
Erdös conjectured that the size of the extremal 4-cycle-free subgraph of the n-dimensional hypercube, $ex(Q_n, C_4)$, is $(0.5 + o(1))e(Q_n)$, where $e(Q_n)$ is the number of edges of the n-dimensional hypercube. We consider the general Turan problem on Q_n for cycles of length $4k + 2$, $k \geq 3$, and show that $ex(Q_n, C_{4k+2})$ is $o(1)e(Q_n)$. This is joint work with Zoltán Füredi. (Received September 17, 2009)