

Traceability of oriented graphs with fixed girth

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An oriented graph is *k-traceable* if each of its subdigraphs of order k is traceable. The Traceability Conjecture states that for $k \geq 2$ every k -traceable oriented graph of order at least $2k - 1$ is traceable. For each $g \geq 4$ we establish an upper bound (linear in k) on the order of strong k -traceable oriented graphs with girth at least g and show that the Traceability Conjecture holds for strong oriented graphs with girth at least 6.