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Mohamed Ait Nouh* (maitnouh@math.ucr.edu), University of California at Riverside,
Department of Mathematics, Surge 272, 900 University Avenue, Riverside, CA 92521. *Genera and
degrees of Knots in CP^2 .*

The CP^2 -genus of a knot K is the minimal genus over all isotopy classes of smooth, compact, connected and oriented surfaces properly embedded in $CP^2 - B^4$ with boundary K . We compute the CP^2 -genus and realizable degrees of $(-2, q)$ -torus knots for $3 \leq q \leq 11$ and $(2, q)$ -torus knots for $3 \leq q \leq 17$. The proofs use gauge theory and twisting operations on knots. (Received September 14, 2009)