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Title:	Conjugacy classes and automorphisms of twin groups
Authors:	Naik, T.K. (/jspui/browse?type=author&value=Naik%2C+T.K.) Nanda, N. (/jspui/browse?type=author&value=Nanda%2C+N.) Singh, Mahender (/jspui/browse?type=author&value=Singh%2C+Mahender)
Keywords:	Conjugacy problem Fibonacci sequence Pure twin group Twin group
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Publisher:	De Gruyter Open Ltd
Citation:	Forum Mathematicum, 32(5), pp.1095-1108.
Abstract:	The twin group $T_n$ is a right-angled Coxeter group generated by $n - 1$ involutions, and the pure twin group $PT_n$ is the kernel of the natural surjection from $T_n$ onto the symmetric group on $n$ symbols. In this paper, we investigate some structural aspects of these groups. We derive a formula for the number of conjugacy classes of involutions in $T_n$ , which, quite interestingly, is related to the well-known Fibonacci sequence. We also derive a recursive formula for the number of $z$ -classes of involutions in $T_n$ . We give a new proof of the structure of $\text{Aut}(T_n)$ for $n \geq 3$ , and show that $T_n$ is isomorphic to a subgroup of $\text{Aut}(PT_n)$ for $n \geq 4$ . Finally, we construct a representation of $T_n$ to $\text{Aut}(F_n)$ for $n \geq 2$
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