# Circle homeomorphisms with break points singularities and invariant measures

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**Abstract**

Let $f$ be a class $P$-homeomorphism of the circle with break point singularities, that is maps $f$ that are derivable except at some singular points where the derivative has a jump. Let $f$ having irrational rotation number and Df is absolutely continuous on every continuity interval of $Df$. We study whether the $f$-invariant measure $\mu_f$ is singular with respect to the Haar measure or not using the cross ratio distorsion tool, and the combinatorial related to the product of jumps at break points. In particular, we generalize previous results obtained by Dzhalilov and Khanin, Akhadkulov, Liousse and Mayer.