

**PERMUTATION GROUPS, GROUPS OF ERGODIC  
TRANSFORMATIONS AND THE BERGMAN PROPERTY**

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We will show that the group of all measure preserving permutations of the unit interval and the full group of an ergodic transformation of the unit interval have uncountable cofinality and the Bergman property. Here, a group  $G$  is said to have the Bergman property, if for any generating subset  $E$  of  $G$ , already some bounded power of  $E \cup E^{-1} \cup \{1\}$  covers  $G$ . This property arose in a recent interesting paper of Bergman where it was derived for the infinite symmetric groups. We give a general sufficient criterion for permutation groups  $G$  to have the Bergman property. We show that the criterion applies to a range of further groups, including sufficiently transitive groups of, respectively, measure preserving, non-singular, or ergodic transformations of the reals or of homeomorphisms of the rationals, the irrationals, or Cantor's set.

Joint work with Rüdiger Göbel, Charles Holland, and Georg Ulbrich.

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