MR0465270 (57 #5175)   92A10
**Holgate, P.**
**Genetic algebras satisfying Bernstein's stationarity principle.**
*J. London Math. Soc. (2)* **9** (1974/75), 612–623.

The classical Hardy-Weinberg law for single locus, autosomal, non-selective populations not only specifies the genotype proportions which are stationary under panmictic breeding, but asserts that whatever the proportions may be initially, the stationary distribution is attained after only a single generation of mating. Half a century ago, S. Bernstein sought to determine and classify all quadratic transformations which could represent non-selective systems of inheritance in which a stationary distribution was attained in a single generation, giving a complete description of the possibilities in three dimensions and finding some special results in four and more dimensions. In this present paper the author uses genetic algebras to study Bernstein's conditions, obtaining an algebraization of the results of Bernstein's classifications.          *Howard B. Stauffer*

© *Copyright American Mathematical Society 1979, 2015*