

$$a_{11}\psi_1+a_{22}\psi_2+a_{33}\psi_3+a_{44}\psi_4+\sum_{1\leq j < k \leq 4}\psi_j\psi_k[A]_{j,k}+\psi_1\psi_2\psi_3[A]_{1,2,3}+\psi_1\psi_2\psi_4[A]_{1,2,4}+\psi_1\psi_3\psi_4[A]_{1,3,4}+\psi_2\psi_3\psi_4[A]_{2,3,4}+$$