

Meeting: 1006, Lubbock, Texas, SS 3A, Special Session on Classical and Differential Galois Theory

1006-12-245 **Teresa Crespo*** (teresa.crespo@ub.edu), Departament d'Algebra i Geometria, Universitat de Barcelona, Gran Via de les Corts Catalanes 585, 08007 Barcelona, Spain, and **Zbigniew Hajto**.
On vectorial polynomial and coverings in characteristic 3.

For K a field containing the finite field \mathbb{F}_9 , we give explicitly the whole family of Galois extensions of K with Galois group the central product of $2S_4$ and either Q_8 or D_8 , where $2S_4$ denotes a double cover of the symmetric group S_4 reducing to the nontrivial double cover of the alternating subgroup, Q_8 denotes the quaternion group and D_8 the dihedral group of order 8. We obtain as well explicitly the discriminant of such an extension. (Received February 15, 2005)