TRIPLANES FOR (71,15,3) ADMITTING A SOLVABLE GROUP OF ORDER 168 ACTING NON-SEMISTANDARDLY

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Abstract. Triplanes for (71,15,3) admitting an automorphism group $G \simeq E_8 \cdot F_{21}$, acting non-semistandardly, have been investigated. Here $E_8 \cdot F_{21}$ is a faithful extension of an elementary abelian group E_8 of order 8 by a Frobenious group F_{21} of order 21. It is shown by efficient methods, that exactly six such triplanes exist together with their duals. They are all non-self-dual. One of these pairs of triplanes has not been known so far.

Mathematics subject classification: 05B25

Keywords: symmetric design, automorphism group, orbit structure, classification.