

On threefolds with the smallest nontrivial monodromy group

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Abstract. Using an adjunction-theoretic result due to A. J. Sommese together with a proposition from SGA7, we obtain a complete list of smooth threefolds for which the monodromy group, acting on the second cohomology group of its smooth hyperplane section, is $\mathbb{Z}/2\mathbb{Z}$. The possibility of such a classification was announced by F. L. Zak in 1991.

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