

## ON THE DIFFEOMORPHISM TYPES OF CERTAIN ALGEBRAIC SURFACES. I

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### Introduction

Using the moduli space of anti-self-dual connections on  $SU(2)$ -bundles, Donaldson has introduced new invariants for closed, smooth 4-manifolds. The invariant of interest to us here is defined for simply connected, oriented 4-manifolds  $M$  of type  $(1, n)$  for any  $n \geq 1$  (type  $(1, n)$  meaning that the self-intersection form  $q_M: H^2(M; \mathbf{Z}) \rightarrow \mathbf{Z}$  defined by  $q_M(x) = \int_M x \cup x$  is

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