962-14-724   **Fabrizio M Catanese*** (`catanese@uni-math.gwdg.de`), Mathematisches Institut, der G.A. Universitaet Goettingen, Bunsenstrasse 3-5, D-37073 Goettingen, Germany. *The use of computer algebra programs for the classification and for explicit constructions in the theory of algebraic surfaces.* Preliminary report.

I will report on joint works with Roberto Pignatelli, Ingrid Bauer and Fabio Tonoli and centered on explicits calculations of 1) MODULI SPACES OF GODEAUX SURFACES 2) canonical rings of surfaces whose canonical system has base points 3) relative canonical rings of fibrations of small genus 4) existence problems for even sets of nodes. The problem faced is rather general : what is the best theoretical set up in which moduli spaces can be effectively described, or existence questions resolved ? (Received September 23, 2000)