

**THE FIRST DERIVATIVE
OF THE PERIOD FUNCTION
OF A PLANE VECTOR FIELD**

J.-P. FRANÇOISE

Abstract

The algorithm of the successive derivatives introduced in [5] was implemented in [7], [8]. This algorithm is based on the existence of a decomposition of 1-forms associated to the relative cohomology of the Hamiltonian function which is perturbed. We explain here how the first step of this algorithm gives also the first derivative of the period function. This includes, for instance, new presentations of formulas obtained by Carmen Chicone and Marc Jacobs in [3].
