Jorge Dioses* (jdioses@cottey.edu). Numerical computations for a generalization of the theorem of Nakagawa on binary cubic forms.

Using class field theory, J. Nakagawa was able to show that there is a correspondence between cubic fields of positive discriminant and cubic fields of negative discriminant. This relationship was explained in terms of class numbers of integral binary cubic forms. The works of B. Datskovsky and D. Wright suggested the possibility of a generalization of the result of Nakagawa to quadratic and cubic extensions of an arbitrary number field. There has been some progress in this direction including a conjecture by J. Dioses that is expressed as an equality of Dirichlet series. Even though a final proof is no available yet, there is strong numerical evidence for the proposed identity. In this presentation, we use existing tables of number fields and calculations of their splitting types at different places to check the conjecture expressed as an equality of finite sums of finite Euler products. (Received September 18, 2013)