Year: 2011 | Vol.: 79 | Fasc.: 3-4

Title: On computing non-Galois cubic global function fields of prescribed discriminant in characteristic >3

Author(s): Michael E. Pohst

We describe how to compute non Galois global cubic function fields of given discriminant. Our method involves ideas from class field theory which help to transfer the task to computations in quadratic extensions. This also leads to an easy method for calculating the number of such fields. Thus we can avoid more complicated computations in case no such fields exist.

## Address:

Michael E. Pohst Technische Universtät Berlin Institut für Mathematik Straße des 17. Juni 136 10623 Berlin Germany