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Jing Long Hoelscher* (jlong@math.arizona.edu), 617 N. Santa Rita Ave., P.O. Box 210089,
Dept. of Math, University of Arizona, Tucson, AZ 85721. *Ray class groups.*

This talk concerns some computations involving ray class groups. First I will give a structure of ray class groups for some prime cyclotomic number fields. As an application, a description of tamely ramified meta-abelian Galois groups will be given. Then I will present some results about nilpotent Galois extensions over quadratic fields $\mathbb{Q}(\sqrt{d})$ ramified only at one prime by computing the ray class number of $\mathbb{Q}(\sqrt{d})$. (Received August 24, 2008)