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Lillian B. Pierce, Caroline L. Turnage-Butterbaugh* (ctb@math.duke.edu) and **Melanie Matchett Wood**. *An effective Chebotarev density theorem for families of fields, with applications to class groups.*

This talk will present a new effective Chebotarev theorem that holds for all but a possible zero-density subfamily of certain families of number fields of fixed degree. For certain families, this work is unconditional, and in other cases it is conditional on the strong Artin conjecture and certain conjectures on counting number fields. As an application, we obtain nontrivial average upper bounds on ℓ -torsion in the class groups of the families of fields. (Received September 25, 2017)