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A Chebotarev density theorem for families, and an application to class groups

This talk will present an 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. This talk is on joint work with Lillian Pierce and Melanie Matchett Wood.