1067-11-1060   **Qingquan Wu*** (`qingqquan.wu@tamiu.edu`), Dept of Engineering, Mathematics, and Physics, Texas A&M International University, 5201 University Boulevard, Laredo, TX 78041. *The Ramification Group Filtrations of Elementary Abelian Extensions and Beyond.* Preliminary report.

Let K be a discrete valuation field with a discrete valuation and associated place P. We investigate the ramification group filtration of an elementary abelian extension L/K at P. Due to the intimate interplay between the ramification group filtration and the different exponent in all of the sub-extensions of prime degree over K, we can treat number fields, function fields, and local fields simultaneously. The Hasse-Arf property is shown to be true and best possible.

Time permitting, we will also talk about how to generalize the results into other Galois extensions with non-abelian Galois groups. (Received September 17, 2010)

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