

DISSERTATION
DEFENSE

Local-global principles for norm one tori over semi-global fields.

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Abstract: Let K be a complete discretely valued field with residue field k (e.g. $k((t))$). Let n be an integer coprime to $\text{char}(k)$. Let $F = K(x)$ be the rational function field in one variable over F and L/F be any Galois extension of degree n . Suppose that either k is algebraically closed or k is finite field containing a primitive n th root of unity. Then we show that an element in F^\times is a norm from the extension L/F if and only if it is a norm from the corresponding extensions over the completions of F at all discrete valuations of F . We also prove that such a local-global principle holds for product of norms from cyclic extensions of prime degree if k is algebraically closed.

Tuesday, March 24, 2020, 4:00 pm
<https://emory.zoom.us/j/382949597>

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