P-adic Numbers

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- 1 Talk 1 Absolute Values on Fields
- 2 Talk 2 Ultrametric Topology and Valuation rings
- 2.1 TODO Local Ring
- 2.2 TODO Proper Ideal
- 2.3 TODO Maximal Ideal
- 2.4 TODO Valuation Ring
- 2.5 TODO Connected, disconnected metric spaces
- 3 Talk 3 Ostrowskis Theorem
- 3.1 TODO Equivalence of Absolute Values
- 4 Talk 4 The Field Qp
- 5 Talk 5 Properties of Qp
- 5.1 TODO Coherent Sequences
- 5.2 TODO totally disconnected hausdorff topological space
- 5.3 TODO compact, locally compact
- 5.4 TODO
- 6 Talk 6 Hensel's Lifting Lemma
- 7 Talk 7 Local-Global Principle
- 8 Talk 8 Elementary Analysis in Qp
- 8.1 TODO p-adic mean value theorem
- 8.2 Problems with derivatives:
 - There exist Injektive Functions with derivative zero at some points, so the zero derivative does not imply that a function is locally constant in Q_p

9 Talk 9 - Strassman's Theorem and the Logarithm Function