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**$p$ -adic conformal invariance and the Bruhat-Tits tree.** (English) Zbl 0746.22018  
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The symmetry properties of  $p$ -adic scaling invariant field theories are investigated. It is shown that some Gaussian and non-Gaussian scaling invariant  $p$ -adic field theories are invariant under the group which conserves the  $p$ -adic norm of the cross-ratio of any four points. This group has a continuation on the Bruhat-Tits tree as an automorphism group of this tree.

Reviewer: P.Maślanka (Łódź)

**MSC:**

- 22E70 Applications of Lie groups to the sciences; explicit representations
- 81T40 Two-dimensional field theories, conformal field theories, etc. in quantum mechanics
- 43A80 Analysis on other specific Lie groups
- 22E35 Analysis on  $p$ -adic Lie groups

Cited in **3** Documents

**Keywords:**

scaling invariant  $p$ -adic field theories;  $p$ -adic norm; Bruhat-Tits tree; automorphism group

**Full Text:** [DOI](#)

**References:**

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