

# Urban structure analysis

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The built-up land represents an important type of overall landscape. We analyse the structure of built-up land mainly in urban areas of the Czech Republic using the framework of statistical physics. To do this, both the variance of the built-up area and the number variance of built-up landed plots in circles are calculated.

In both cases the variance as a function of a circle radius follows a power law. The obtained value of the exponents are comparable to exponents typical for critical systems.

The scale invariance as a most fundamental property of critical systems is discussed. The study is based on cadastral data from the Czech Republic.

This is joint work with Petr Šeba and Pavel Exner.