## On the Arithmetical Structure of Some Compact Subsets in the *p*-adic Complex Number Field

## **Angel Popescu\***

Department of Mathematics, Technical University of Civil Engineering of Bucharest, Romania. E-mail: popescuangel@yahoo.co.uk

## **Abstract**

We use arithmetical tools (algebraic numbers, valuations, Galois groups) in order to describe the structure of all compact subsets of the *p*-adic complex field, which are invariant with respect to the absolute Galois group of the *p*-adic number field.

**Keywords and Phrases:** Galois groups, number fields, Banach algebras, compact sets.