

**Transcendence in ♠ words:
an analogous of a theorem of Bugeaud in the p-adic setting**

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Abstract: A result of Bugeaud asserts that, whenever a real number α has a continued fraction expansion whose sequence of partial quotients has a “very regular” form (for example, it is an automatic sequence or a Sturmian word), then α is either quadratic or transcendental. Bugeaud’s proof strongly relies on Schmidt subspace theorem, which is a celebrated result in diophantine approximation that can be seen as a higher dimensional analogue of Thue-Siegel-Roth theorem. In this talk we will see how similar ideas can be applied to deduce an analogue of Bugeaud’s result in the p-adic setting. This is a joint work in progress with S. Checcoli, M. Mula and L. Terracini.