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ON IWASAWA THEORY OF CRYSTALLINE REPRESENTATIONS

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Contents

§0. Introduction

0.1. In his paper [F2], J.-M. Fontaine worked out a general approach to the classification of p-adic representations of local fields. His method is based on the relation between local fields of characteristic zero and functional local fields, given by the field of norms functor (see [Win]). More precisely, Fontaine established an equivalence between the category of $\mathbb{Z}_p$-representations of a local field of characteristic zero and the category $\Gamma\Phi\mathbf{M}^{\text{ét}}_{\mathbb{O}_K}$ of étale modules over a 2-dimensional local ring $\mathbb{O}_K$, equipped with a Frobenius and a continuous action of the cyclotomic Galois group.

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