

Kisin, Mark**Crystalline representations and F -crystals.** (English) [Zbl 1184.11052](#)

Ginzburg, Victor (ed.), Algebraic geometry and number theory. In Honor of Vladimir Drinfeld's 50th birthday. Basel: Birkhäuser (ISBN 978-0-8176-4471-0/hbk). Progress in Mathematics 253, 457-496 (2006).

Summary: Following ideas of Berger and Breuil, we give a new classification of crystalline representations. The objects involved may be viewed as local, characteristic 0 analogues of the “shtukas” introduced by Drinfeld. We apply our results to give a classification of p -divisible groups and finite flat group schemes, conjectured by Breuil, and to show that a crystalline representation with Hodge-Tate weights 0, 1 arises from a p -divisible group, a result conjectured by Fontaine.

For the entire collection see [\[Zbl 1113.00007\]](#).**MSC:****11S20** Galois theory**14F30** p -adic cohomology, crystalline cohomologyCited in **13** Reviews
Cited in **90** Documents**Keywords:**classification of crystalline representations; classification of p -divisible groups; finite flat group schemes; crystalline representation with Hodge-Tate weights**Full Text:** [DOI](#)