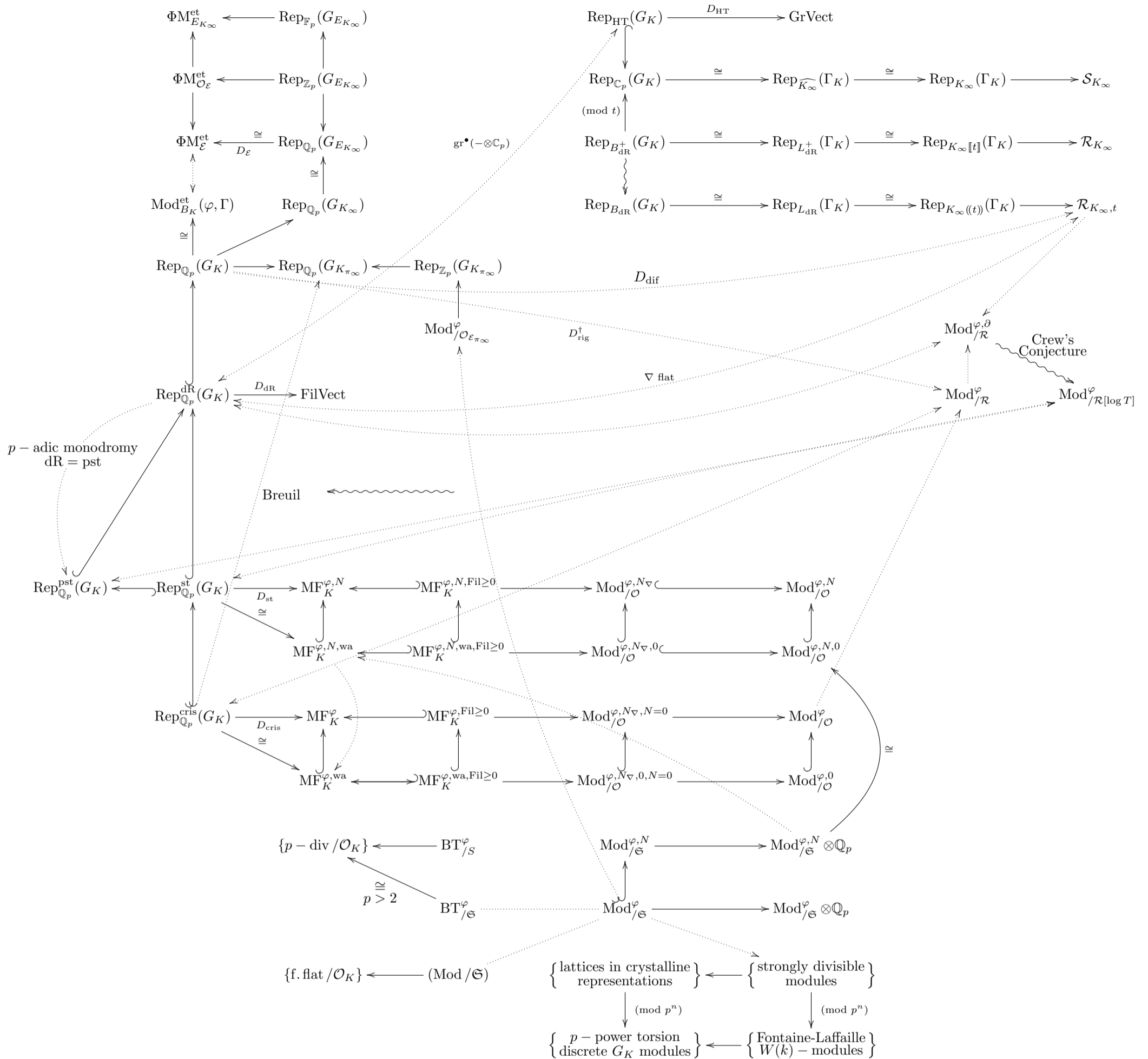


# p-adic Hodge Theory Road Map



Where

- $W(k) = \mathcal{O}_K \cap \mathbb{Z}_p^{\text{ur}}$  are the Witt vectors,
- $K_\infty = K(\zeta_{p^\infty})$ ,
- $K_0 = \text{Frac } W(k)$ ,
- $K_{\pi_\infty} = K_0(\varpi^{1/p^\infty})$ ,
- $E_{K_\infty}$  is the field of norms of  $K_\infty$ ,
- $\mathcal{O}$  are converging power series on the unit disc,
- $\mathfrak{S}$  are power series in  $\mathcal{O}$  with integral coefficients,
- $\mathcal{R}$ , the Robba ring, consists of converging power series on annuli,
- wa stands for weakly admissible,
- $\mathcal{S}_{K_\infty}$  are  $K_\infty$  vector spaces with linear operators,
- $L_{\text{dR}} = B_{\text{dR}}^{G_{K_\infty}}$ ,
- $\mathcal{R}_{K_\infty}$  are finitely generated  $K_\infty[[t]]$  modules with logarithmic connections,
- $\mathcal{R}_{K_\infty, t}$  are finitely generated  $K_\infty((t))$  modules with meromorphic connections that restrict to a logarithmic connection on some  $K_\infty[[t]]$  submodule.