

# Perfectoid Siegel varieties and applications

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Building on fantastic recent work of Scholze, we prove some results about the perfectoid Siegel varieties : we construct a formal model of the Hodge–Tate period map, we show that Scholze strange integral models exist in low level, and we show that the toroidal compactification is perfectoid at infinite level. We will finally give nonperfectoid applications of the perfectoid world.

*This is joint with Vincent Pilloni.*

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