

1154-11-2124 **Christelle Vincent*** (christelle.vincent@uvm.edu), 82 University Place, Burlington, VT
05405. *Computing hyperelliptic modular invariants from period matrices*. Preliminary report.

We define the modular invariants of a hyperelliptic curve to be the value of certain Siegel modular functions that correspond to classical invariants of hyperelliptic curves, evaluated at a period matrix of the Jacobian of the curve. In this talk, we discuss this correspondence between modular functions and invariants of curves, as well as certain computational considerations that arise when recognizing the invariants as algebraic numbers from their floating point approximation. This is joint work with Ionica, Kilicer, Lauter, Lorenzo Garcia, Massierer and Manzateanu. (Received September 17, 2019)