1056-11-373 **Cristian D Popescu*** (`cpopescu@math.ucsd.edu`), University of California, San Diego, Department of Mathematics, Dept 0112, La Jolla, CA 92093-0112. *Tate sequences and applications.* Preliminary report.

We use our recent joint work with Greither on ℓ–adic realizations of 1–motives to construct some concrete perfect complexes which conjecturally belong to the Tate canonical class in a certain Ext-group associated to an arbitrary Galois extension of global fields (in particular, function fields). We indicate how the Grothendieck determinants of these complexes can be computed in terms of special values of global L-functions. We show how these constructions lead to proofs of some classical conjectures on special values of global L-functions. (Received September 02, 2009)

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