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Anna M Romanov* (anna.romanov@sydney.edu.au) and **Adam Brown**. *Contravariant duality for Whittaker modules*. Preliminary report.

We introduce a classification of contravariant forms on standard Whittaker modules for a semisimple Lie algebra in terms of Lie algebra homology. This classification can be used to give an algebraic construction of contravariant duality for Whittaker modules. This construction allows us to algebraically define costandard Whittaker modules which align with costandard (twisted) Harish-Chandra sheaves under Beilinson—Bernstein localization. Using this we establish that the category of Whittaker modules has the structure of a highest weight category. This is joint work with Adam Brown (IST Austria). (Received March 04, 2021)