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On the universal central extension of certain Krichever-Novikov algebras.

We will describe results on the center of the universal central extension of certain Krichever-Novikov algebras. In particular we will describe how various families of classical and non-classical orthogonal polynomials appear. We will also provide certain new identities of elliptic integrals. This material we will cover was obtained in joint work with V. Futorny, J. Tirao, M. S. Im, X. Gu, R. Luo, and K. Zhao