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Coisotropic subalgebras of complex semisimple Lie bialgebras.

In his paper “A Construction for Coisotropic Subalgebras of Lie Bialgebras,” Marco Zambon gave a way to use a long root of a complex semisimple Lie bialgebra \mathfrak{g} to construct a coisotropic subalgebra of \mathfrak{g} . In this paper, we generalize Zambon’s construction. Our construction is based on the theory of Lagrangian subalgebras of the double $\mathfrak{g} \oplus \mathfrak{g}$ of \mathfrak{g} , and our coisotropic subalgebras correspond to torus fixed points in the variety $\mathcal{L}(\mathfrak{g} \oplus \mathfrak{g})$ of Lagrangian subalgebras of $\mathfrak{g} \oplus \mathfrak{g}$. (Received September 13, 2014)