

## Super-biderivations of the contact Lie superalgebra $K(m, n; \underline{t})$ in prime characteristic

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**Abstract.** Let  $K$  denote the contact Lie superalgebra  $K(m, n; \underline{t})$  over a field of characteristic  $p > 3$ , which has a finite  $\mathbb{Z}$ -grading structure. In this paper, we take the canonical torus  $T_K$  of  $K$ , which is an abelian subalgebra of  $K$ . By the decomposition of the weight space of  $K$  with respect to  $T_K$ , we show the action of the unique linear map related to symmetric super-biderivation on the generators of  $K$ . Moreover, we prove that each symmetric super-biderivation of  $K$  is zero. Further, we get that each super-biderivation of  $K$  is inner. As applications, the linear super-commuting maps and super-commutative post-Lie superalgebra structures on  $K$  are described.

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*Mathematics Subject Classification:* 17B05, 17B40, 17B50.

*Key words and phrases:* torus, weight space decomposition, super-biderivation, contact Lie superalgebras, super-commutative post-Lie superalgebra structures.