Howe Duality for the general linear Lie superalgebras

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We study a dual pair of general linear Lie superalgebras in the sense of R. Howe. We give an explicit multiplicity-free decomposition of a supersymmetric algebra under the action of the dual pair and present explicit formulas for the highest weight vectors in each isotypic subspace of the supersymmetric algebra. Our work unifies the classical Howe duality in symmetric and skewsymmetric algebras.