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# AN EIGENVECTOR–EIGENVALUE–IDENTITY FOR MATRICES WITH A NON–SEMI–SIMPLE EIGENVALUE

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*Abstract.* We prove an eigenvector-eigenvalue-identity for a complex matrix, concerning some orthonormal basis of the generalized eigenspace associated to an eigenvalue that has exactly one Jordan block in the Jordan canonical form of the matrix. The new formula extends the previous one for the case of simple or semi-simple eigenvalues.

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