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On some zero-increasing operators.

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The paper considers linear operators over coefficients of monovariate polynomials. Applying these operators may alter the number of polynomial zeros (roots) along the real axis. The authors describe the whole set of degree-preserving unit lower triangular linear operators which let the number of real zeros increase for an arbitrary polynomial. This is a generalization of a result of *Pólya* and *Schur* (1914), which was in turn a generalization of a well-known zero-counting theorem by *Laguerre* (1884). The proof relies on the so-called Pólya-Laguerre functions (a special class of entire functions), Hermite polynomials and the Hermite-Poulain theorem. *Didier Henrion (Toulouse)*

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