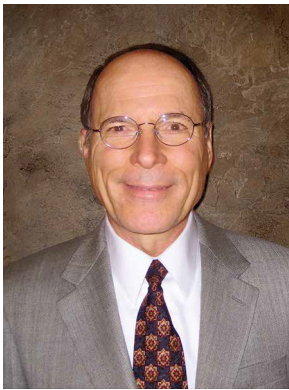


Reasons for Teaching and Using the Signed Coefficient of Determination instead of the Correlation Coefficient

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Abstract:

The *correlation coefficient* has many different definitions and formulas, but in regard to the strength of correlation, no mathematically rigorous meaning can be inferred from any of them. On the other hand, the *coefficient of determination* (the square of the correlation coefficient) has mathematically rigorous meaning that is easily understood from its definitions and formulas. From an historical and theoretical view, a signed version of the coefficient of determination is a better choice than the correlation coefficient for the teaching and measurement of simple linear correlation.



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