A New Measure Of Standard Deviation

Author: **Ramesh Chandra Bagadi**

Founder, Owner, Co-Director And Advising Scientist In Principal
Ramesh Bagadi Consulting LLC, Madison, Wisconsin-53715, United States Of America.
Email: rameshcbagadi@uwalumni.com

Abstract

In this research investigation, the author has presented a Novel notion of 'Standard Deviation'.

Theory

Usually, we calculate *Standard Deviation* with respect to the *Arithmetic Mean*. However, we should calculate it with respect to the *True Value*. Say, we we have a Data Set that has as its elements the *n* measurements of certain observation as its values, when it is repeated say, *n* times. This Data Set could be *Normal* or not Normal. For this Data Set, we pick some *True Value* around the Data Set's Arithmetic Mean and compute the Difference of every element of this Data Set and the picked True Value. If this *Differences Data Set* has some Negative values, we add just a big enough positive constant to all the elements of this Differences Data Set such that all elements of this Differences Data Set are positive.We now plot the thusly gotten Differences Data Set and check if it is perfectly Normal or not. If it is not, we now iteratively keep changing (towards either side) the value of this picked True Value, till we get the corresponding Differences Data Set to be perfectly Normal. The True Value corresponding to the perfectly Normal Differences Data Set can be taken as the True Mean with respect to which we can calculate Standard Deviation.

References

www.vixra.org/author/ramesh_chandra_bagadi

Moral

A True Prayer Rings The Bell At God's Home.

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formation of the necessary scientific temperament and the social and personal outlook of the author that has resulted in the conception, preparation and authoring of this research manuscript document.

Tribute

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Dedication

*All of the aforementioned Research Works, inclusive of this One are **Dedicated to Lord Shiva**.*