

Abstract Submitted  
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**Does mean mean MEAN!? Digits For A Very Long Time Giving Us The Finger!: 1881 Statistics Log-Law was: Quanta=Digits!: BEC; Zipf 1/f-Law; Information-Thy; Random-#s = Euler V Bernoulli; Q-Computing = Arithmetic; P= /=NP SANS Complexity: Euclid 3-Mille EDWARD SIEGEL**

— Classic statistics digits Newcomb[Am.J.Math.4,39,1881]-Weyl[Goett.Nachr.1912]-Benford[Proc.Am.Phil.Soc.78,4,51,1938] (“NeWBe”) probability ON-AVERAGE/MEAN log-law:  $\langle P \rangle = \log[1+1/d] = \log[(d+1)/d]$  [google: “Benford’s Law”; “FUZZYICS”: Siegel[AMS Nat.-Mtg.:2002&2008)]; Raimi[Sci.Am.221,109,1969]; Hill[Proc.AMS,123,3,887,1996]=log-base=units=SCALE-INVARIANCE!. Algebraic-inverse  $d=1/[e^{\langle w \rangle}-1]$ : BOSONS(1924)=DIGITS(<1881): Energy-levels:ground=(d=0),first-(d=1)-excited ,... No fractions; only digit-integer-differences=quanta! Quo vadis digit  $\langle P(d=0) \rangle = \infty$  vs.  $\langle P(d=1) \rangle \ll \ll \infty$ ? DIGITS gapFUL BE(“NeWBe”)C! Siegel[Schroed.Cent.Symp.1987]  $e^{\langle w \rangle}$ -term expansion:  $d \sim 1/[1+w+\dots]-1] = 1/w^{\langle 1.000\dots \rangle}$  Zipf-law Pareto power-law decay algebraicity, Siegel[Symp.Fractals,MRS Fall-Mtg.,1989-5] “FUZZYICS” explains INEVITABILITY via Lawvere-Goguen-Siegel-Baez “CATEGORICAL-SEMANTICS” HYBRID:CATEGORY-THEORY+COGNITIVE-SEMANTICS! Averages dominate physics: expectations,ensemble, time,ANY/ALL experiments!: What if any don’t follow digits log-law? Must they always?; Do YOURS?; ALWAYS?; No fluctuations from it allowed?; Never?; Ever?; Never Ever? Ponder long/hard digits’ log-law’s MEANING for physics/ sciences! Could statistics’ “mean” REALLY MEANS “MEAN!”? ”Does ‘mean’ mean “MEAN!”?”: “quantum-computing” is/was always alive/well in/since 1881: in  $\langle 1 + 1 = 2 \rangle$ ,... simple-arithmetic!

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