

Abstract Submitted  
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**Number-Theory in Nuclear-Physics in Number-Theory: Non-Primality Factorization As Fission VS. Primality As Fusion; Composites' Islands of INstability: Feshbach-Resonances?** A. SMITH, EDWARD CARL-LUDWIG SIEGEL, FUZZYICS=CATEGORYICS(SON OF TRIZ) — Numbers: primality/indivisibility/non-factorization versus compositeness/divisibility/ factorization, often in tandem but not always, provocatively close analogy to nuclear-physics:  $(2 + 1)=(\text{fusion})=3$ ;  $(3+1)=(\text{fission})=4[=2 \times 2]$ ;  $(4+1)=(\text{fusion})=5$ ;  $(5 + 1)=(\text{fission})=6[=2 \times 3]$ ;  $(6 + 1)=(\text{fusion})=7$ ;  $(7+1)=(\text{fission})=8[= 2 \times 4 = 2 \times 2 \times 2]$ ;  $(8 + 1) =(\text{non: fission nor fusion})= 9[=3 \times 3]$ ; then ONLY composites' Islands of fusion-INstability: 8, 9, 10; then 14, 15, 16, ... Could interdigit Feshbach-resonances exist??? Possible applications to: quantum-information/computing non-Shore factorization, millennium-problem Riemann-hypotheses proof as Goodkin BEC intersection with graph-theory "short-cut" method: Rayleigh(1870)-Polya(1922)-"Anderson"(1958)-localization, Goldbach-conjecture, financial auditing/accounting as quantum-statistical-physics; ... abound!!! Watkins [[www.secamlcal.ex.ac.uk/people/staff/mrwatkin/](http://www.secamlcal.ex.ac.uk/people/staff/mrwatkin/)] "Number-Theory in Physics" many interconnections: "pure"-maths number-theory to physics including Siegel [AMS Joint Mtg.(2002)-Abs.# 973-60-124] inversion of statistics on-average digits' Newcomb(1881)-Weyl(14-16)-Benford(38)-law to reveal both the quantum and BEQS (digits = bosons = digits:"spinEless-boZos").  $1881 < 1885 < 1901 < 1905 < 1925 < 1927$ , altering quantum-theory history!!!

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FUZZYICS=CATEGORYICS(SON OF TRIZ)

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