## Abstract Submitted for the NWS17 Meeting of The American Physical Society

Physical Constants and Computational limits duality (Estakhr's Principle of Physical Constants) AHMAD REZA ESTAKHR, Physics Researcher — Physical Constants-Computational limits duality. A physical constant, sometimes fundamental physical constant, is a physical quantity that is generally believed to be both universal in nature and having constant value in time. Computational limits are physical and practical limits to the amount of computation or data storage that can be performed with a given amount of mass, volume, or energy Estakhr's Principle of Physical Constants states that Physical Constants (such as G,h,c, ...etc) are Computational limits and it is impossible for a physical computer to compute out of the range of these limits (the range of physical constants), because they are 'unbreakable limits'. Physical Constants are limits to computation of Universe after the Big Bang (If the Big Bang gave birth to the universe). Physical constants are limits to the amount of computation or data storage that can be performed. Estakhr's principle also explains the values of all fundamental physical constants: 'Fundamental Physical Constants takes their values from Computational limits of universe'.

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Date submitted: 15 Apr 2017 Electronic form version 1.4