

ADDENDUM – The table of all the abbreviations used in BIDUM version 1.1

Dear readers, I appreciate your time and patience to read/try to read my article. However, this is not a simple article: as it describes the universe in informational terms (as it is a model of the universe; Bio-Info-Digital-Universe-Model [BIDUM]) and has almost 60 pages, it tends to be more like a manual in which I have reformulated a lot of classical and modern concepts of physics. Like any manual/book-like article, the abbreviations are inevitable, as I also try to impose new general concepts (together with their abbreviations which I try to propose too). If I had used the classical terms with a minimal abbreviational strategy, the phrases would become very complex and hard to read as the explanations have a lot of parenthesis (as I practice a tree-like multi-level phrase structures). The main abbreviations I have imposed is for fundamental physical concepts I try to present and I always first explain them (and mention them between parenthesis). **These are the most frequent: (elementary) quantum particle ([E]QP), gauge-boson (GB), non-gauge particle (NGP), physical information (quantity/quanta) (PI[q/qua]), biological information (quantity/quanta) (BI[q/qua]), biophysical information (quantity/quanta) (BPI[q/qua]), physical observer (PO), biological observer (BO), Fine Structure Constant (FSC), GCC (gravitational coupling constant), fundamental forces/fields (FFs): strong nuclear force/field (SNF), weak nuclear force/field (WNF), electromagnetic force/field (EMF), (electro)gravitational force/field (EGF), super string theory (SST), M-theory (MT) etc.** The majority of the rest of them are standard abbreviations used in standard physical language. I have also anticipated the difficulty of reading this manual-like article, that is why I have also created this separate file with all the abbreviations used in my BIDUM. **Important remark:** this update is also due **Sergey G. Fedosin**^[1] which I want to thank again as he convinced my once again that this table of abbreviations is a must to share with all my readers.

Table 1. The abbreviations used in BIDUM version 1.1 (with Wikipedia references only)	
ACP	(The) Anthropic Cosmological Principle/Hypothesis ^[2]
α	the inverse of Fine Structure Constant (at rest) ^[3] (FSC) (abbreviation chosen for the simplicity and intelligibility of the equations); $\alpha = 1 / FSC = \hbar c / (K_e q_e^2) \sim 137.036$
α_G	the inverse of gravitational coupling constant (GCC) ^[4] (abbreviation chosen for the simplicity and intelligibility of the equations): $\alpha_G = 1 / GCC = \hbar c / (G m_p^2) = (m_p / m_e)^2 \sim 5.7 \cdot 10^{44}$ $\alpha_{gr} = \alpha g / 2\pi$

[1] URL: [researchgate.net/profile/Sergey_Fedosin](https://www.researchgate.net/profile/Sergey_Fedosin)

[2] URL: en.wikipedia.org/wiki/Anthropic_principle

[3] URL: en.wikipedia.org/wiki/Fine_structure_constant

BI	Biological information (as defined in BIDUM)
BIq	Biological information quantity (as defined in BIDUM)
BIqua	A specific Biological information quantity/quanta (as defined in BIDUM)
BO	(the) bio-observer (as defined by BIDUM)
BPO	(the unified) bio-physical-observer (as defined by BIDUM)
BPI	(unified) Bio-physical information (as defined in BIDUM)
BPIq	Bio-physical information quantity (as defined in BIDUM)
BIF	Biological information field/force (as defined in BIDUM)
BIDUM	A Bio-Info-Digital Universe Model (a model of the physical universe using a PI quantity scalar based on the quantum angular momentum and using the hypothetical graviton as a quantum/subquantum informational unit)
BL-TH	The binary logarithmic (variant of) Teller's hypothesis (TH) (as defined by BIDUM). See TH .
c	the speed of light in vacuum ^[5]
DAH	Drăgoi's alpha (constant) hypothesis (my hypothesis based on a binary logarithm subvariant of Teller's hypothesis) (as defined in BIDUM)
DLNH	Dirac's large number hypothesis ^[6]
e	Euler's (transcendental) number (the base e of the natural logarithms and natural base-e exponentials) ^[7]
ε₀	vacuum permittivity ^[8]
E_{ph}(λ)	the energy of a single photon ^[9] : $E_{ph}(\lambda) = hc / \lambda = h\nu, \text{ with } \nu = c / \lambda$
EQP	Elementary quantum particle
eg	(hypothetical) electrograviton (a hypothetical graviton with a specific scalar, as defined in BIDUM)
EGF	(The) Electrogravitational (fundamental) force/field (as defined in BIDUM)
EMF	(the) ElectroMagnetic (fundamental) force/field
EWf	(the unified) EletroWeak (fundamental) force/field
FF(s)	(physical) Fundamental force/field(s)
FPF(s)	Fundamental physical force/field(s)
FSC	the Fine Structure Constant (at rest) ^[10] ; $FSC = K_e q_e^2 / (\hbar c) \sim 1 / 137.036$
G	the classical (Newtonian) experimentally determined G

[4] URL: en.wikipedia.org/wiki/Gravitational_coupling_constant

[5] URL: en.wikipedia.org/wiki/Speed_of_light

[6] URL: en.wikipedia.org/wiki/Dirac_large_numbers_hypothesis

[7] URL: [en.wikipedia.org/wiki/E_\(mathematical_constant\)](https://en.wikipedia.org/wiki/E_(mathematical_constant))

[8] URL: en.wikipedia.org/wiki/Vacuum_permittivity

[9] URL: en.wikipedia.org/wiki/Photon

[10] URL: en.wikipedia.org/wiki/Fine_structure_constant

G_{qe}	The DAH/MBL-TH-based (for DAH/MBL-TH see above/below) quantum gravity scalar for the Newtonian universal gravitational constant: „a quantum big G”) as defined in BIDUM
GCC	the gravitational coupling constant ^[11] ; $GCC = Gm_e^2 / (\hbar c) = (m_e / m_p)^2 \sim 1 / (5.7 \cdot 10^{44})$
GCCr	the gravitational coupling constant ^[12] redefined in BIDUM
GB(s)	gauge boson(s)
GP(s)	gauge-particle(s)
IP(s)	(physical) information pack(s). See LMI and LMIP .
h / ħ	Planck constant ^[13] / the reduced Planck constant ($\hbar = h/[2\pi]$)
FTU	The Fine-tuned Universe (observation) ^[14]
HUP	The Heisenberg’s Uncertainty principle ^[15]
K_e	Coulomb (electrostatic) constant
LMI	location-and-(angular)momentum information (as defined in BIDUM)
LMIP	location-and-(angular)momentum information pack (as defined in BIDUM)
l_p	Planck length/distance
log₂(x)	the 2-base (binary) logarithm of x>0.
ln(x)	the e-base (natural) logarithm of x>0
m_n / m_p / m_e / m_p	(free) neutron/ proton/ electron/Planck rest mass
MBL-TH	The Main Binary Logarithmic Teller-like Hypothesis as defined in BIDUM (as called Drăgoi’s Alpha Hypothesis (DAH))
NBE	(average) nuclear binding energy (per each nucleon, for each type of nucleus) (also called: the average nuclear mass defect per each nucleon for each type of nucleus) ^[16]
NGP(s)	non-gauge-particle(s) (as defined in BIDUM)
NL-TH	(the original) natural logarithm (variant of) Teller’s hypothesis (TH). See TH .
Pep(s)	Proton-electron pair(s) (also called STA as defined by BIDUM)
PI	physical information (as defined in BIDUM)
PIq	physical information quantity (as defined in BIDUM)
PIqua	A specific physical information quantity/quanta (as defined in BIDUM)
PO	(the) physical-observer (as defined by BIDUM)

[11] URL: en.wikipedia.org/wiki/Gravitational_coupling_constant

[12] URL: en.wikipedia.org/wiki/Gravitational_coupling_constant

[13] URL: en.wikipedia.org/wiki/Planck_constant

[14] URL: en.wikipedia.org/wiki/Fine-tuned_Universe

[15] URL: en.wikipedia.org/wiki/Uncertainty_principle

[16] URL: en.wikipedia.org/wiki/Nuclear_binding_energy

q_e	the elementary charge (so that not to be confused with Euler number e)
QP	Quantum particle
R_e	the classical electron radius
SNF	(the) Strong Nuclear (fundamental) force/field
STA(s)	spacetime atom(s) (also called pep as defined by BIDUM)
t_p	Planck time
TH	The Edward Teller's ^[17] Hypothesis on a logarithmic relation between the fine structure constant (FSC) and the parameter $G \cdot m_N^2 / (h \cdot c) \sim 10^{-39}$ of the form $\alpha \sim \ln[G \cdot m_N^2 / (h \cdot c)]$, with m_N being the mass of a nucleon (proton or neutron)
WNF(s)	(the) Weak Nuclear (fundamental) force/field

[17] URL: en.wikipedia.org/wiki/Edward_Teller