

Initial conditions. Table 1.

#	Description	Link to source/ comments
1	Project implemented in Python	ver. 3.7.6
2	ID - Anaconda	ver. 2020 02
3	All data presented in the SI system	nist.gov/
4	All constants are taken from the data the US NIST.	nist.gov/
5	Particle structure - published works of Nobel laureates.	published scientific works
6	Protons, neutrons have a core and two shells.	Robert Hofstadter
7	Speed of light in a vacuum, $c = 299792458$	nist.gov/
8	Electrical constant, $\epsilon_0 = 8.8541878128 \times 10^{-12}$	nist.gov/
9	Gravitational constant, $G = 6.67430 \times 10^{-11}$	nist.gov/
10	Electric charge of an electron $-1.602176634 \times 10^{-19}$	nist.gov/
11	$\pi = 3.14159265358979$	Scientific American
12	Planck's constant, $h = 6.62607015 \times 10^{-34}$	nist.gov/
13	Electron diameter $10^{-22}$ ,	Hans D. Dehmelt Experiments
14	The proton consists of two quarks	Murray Gell-Mann
15	The newneutron consists of two quarks	Murray Gell-Mann
16	Quark radius - $(0.47 \cdot 10^{-16} \text{ cm})^2$ $< R^2 < (0.43 \cdot 10^{-16} \text{ cm})^2$	arxiv.org/pdf/1604.01280.pdf

17	Additional information	Data from available sources.
18	Quark condensate provides about 9 percent of the proton's mass	Physical Review Letters, 2018 , website arXiv.org
19	Electron diameter: $10e^{-22}$	Nobel lecture, December, 8, 1989, Hans D. Dehmelt Experiments with an isolated subatomic particle at rest
20	proton mass: $1.67262192369E^{-27}$	nist.gov/
21	neutron mass: $1.67492749804E^{-27}$	nist.gov/
22	The magnitude of the charge of the core, shells in the proton respectively: 0.35; 0.5; 0.15	Robert Hofstadter the Nobel laureate
23	The magnitude of the charge of the core, shells in the neutron respectively: 0.35; - 0.5; 0.15	Robert Hofstadter the
24	The proton radius: 0.84 fm	aps.org/publications/apsnews/201806/proton.cfm
25	The neutron radius: $0.8e^{-15}$	Povh, B.; Rith, K.(2002).
26	Rradius of the proton core: $0.23 \pm 0.03$ F	<a href="https://doi.org/10.1103/PhysRevD.18.2484">https://doi.org/10.1103/PhysRevD.18.2484</a>
27	Rradius of the neutron core: from 0.3 to 0.36 fm	arxiv.org/pdf/1810.00486.pdf
28	The radius of the inner shell of the neutron is approximately 0.6 fm.	actaphys.uj.edu.pl/fulltext?series=Reg&vol=30&page=119
29	Proton, neutron consists of a nucleus and two shells, or three quarks, ...	<a href="https://cerncourier.com/a/the-proton-laid-bare/">https://cerncourier.com/a/the-proton-laid-bare/</a> <a href="https://www.nature.com/articles/s41586-019-0925-9">https://www.nature.com/articles/s41586-019-0925-9</a>
30	This calculation starts with the fact that a quark consists of a nucleus and two shells	This is a conditional division