Construct the 8 Models from the Tool Bags and Use the Help Book for Teaching or Learning
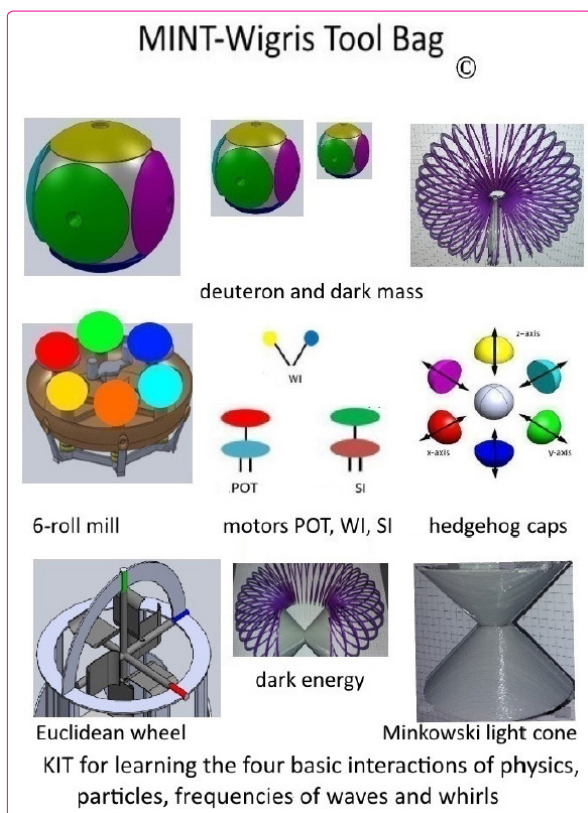
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A sixfold G-matrix symmetry comes from the general relativistic scaling factor of the Schwarzschild metric for gravity, the needle of the compass moves discrete in 60° angles for sixfold properties of nuclear items such as QCD color charges of quarks, charges of electrical leptons, 6 fold masses of fermionic series, 6 energies, the 6 matrix transformations of a nucleons triangle symmetry, - treat or learn in particular the quarks QCD six color charges by using the sixth roots of unity and the nucleon triangle symmetry D3 for quarks.

Hedgehog and 6-roll mill
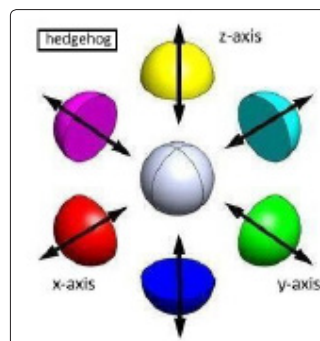
The D3 symmetry allows to set color charge polar caps for energy vectors (first figures on the front page) where a deuteron atomic kernel exchanges with its environment electrical potential EM (red cap), mass GR related energies/potentials (turquoise cap), the POT motor drives the Heisenberg uncertainties coupled 2 rolls in the 6-roll mill, also in the following two couplings of energies: heat (green cap), rotational energy (magenta cap) [SI strong interaction motor], kinetic energy - momentum (blue cap), magnetic energy (yellow cap) [WI weak interaction motor, sixth figure on the front page]; the 6-roll mill (fifth figures on the front page) with an elliptic umbilic catastrophe of catastrophe theory can be briefly explained in an advanced course, it can be macroscopically constructed for a polymer flow rotating about the rolls.

G-compass [Figure]
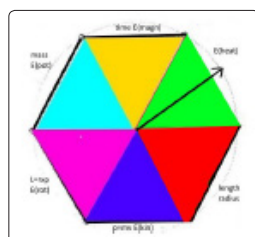
Gluon Exchange
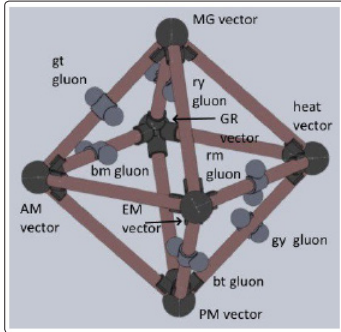
Deuteron atomic kernel as a tetrahedron, 6 quarks as vertices of the tetrahedron, six gluons for the color charge SI exchange between 2 quark vertices, bm, bt, gt, gy, rm, ry on sides, drawn in physics as springs for the SI confinement of quarks in nucleons.

Quark vectors are AM (polar cap magenta for angular momentum in the hedgehog), EM (polar cap reg for electromagnetic potentials), heat (polar cap green for entopy in the inner part and heat exchange), GR for gravities potential, MG (polar cap yellow for magnetic energy), PM for momentum (polar cap blue kinetic energy).

Barycenter, Hopf tori and Wheel
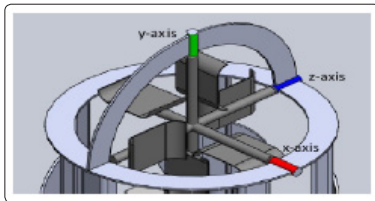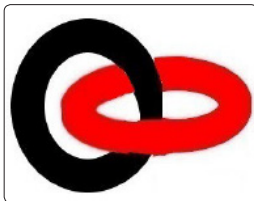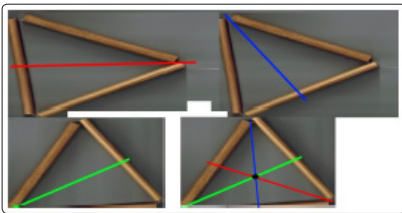
The SI rotor sets barycentrical GR coordinates for mass, using integrations of forces to potentials for radius with dr, magnetic area of the triangle integration for the crossing magnetic field and induction; the Hopf map allows Heegard S³ decays in two lepton solid tori; the wheel (figure 8 on the front page) generates Euclidean xyz-coordinates by three rotations where the axes are set; it runs as a video and is not in a bag for construction.

Deuteron
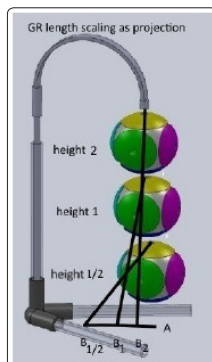
Using stereographic projections of deuteron onto the floor, the GR waves length contraction or expansion is demonstrated: in 8-dimensional octonian coordinates deuteron sits above the Euclidean xyz-space, for the demonstration hanging on a telescopic stick; as a video puksation the WI and SI coordinates have a special relativistic speed towards one another and the nucleons contractions are shown in flat figures below where the triangles in SI coordinates are concentric and in WI coordinates spiralic rotated.
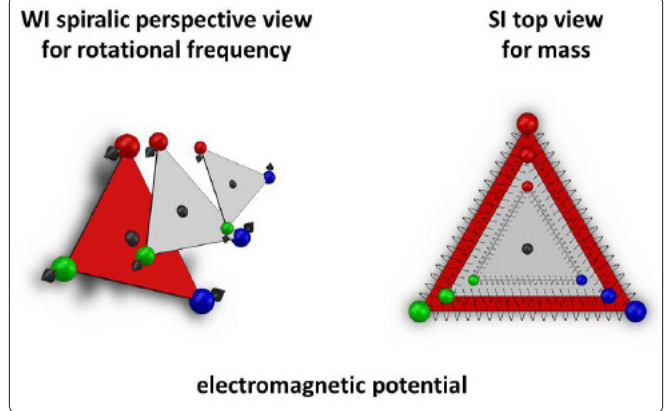
Handcrafts and Dark Mass
Dark Energy with the help of a template further models can be constructed, drawn on paper, folded together and
Fixed with glue or other helps like clips.

The figures 4, 9 on the front page are for mass as frequency drawn on a Horn torus with a singular Point in the middle and for dark energy as an electromagnetic waves frequency, drawn as helix line on a cylindir which is in this case closed by a light cone (Figure 10)

Handbook
It contains first the advice how the parts in the bags are sticked together for the 8 models, then for teachers or parents of learning students in a course what items from modern particle physics, the standard models symmetries can be explained in the models demonstrations. For the words used most names are marked blue in the index such that for further information and a click on the word an explaining article from the internet is uploaded and can be printed. Since the whole model, presented in the book Gudrun Kalmbach H.E., MINT-Wigris, Scholar's Press, Beau Basin, 2017, needs the authors comments from the books theory, some articles of the author are included before the index of the handbook. Literature to be consulted can be found below or in the book [1-7].

From 2020 on the MINT-Wigris Tool Bag can be ordered through internets adresses like ebay or amazon and found by a Google search. The listing contains then the prize of the Tool Bag and a form sheet to be filled out where the money has to be prepayed and to which address the shipping shall go.

References
1. G Kalmbach HE (2017) MINT-WIGRIS, MINT Verlag, Bad Woerishofen.
2. G Kalmbach HE (Chef-Hrsg), MINT (Mathematik, Informatik, Naturwissenschaften, Technik), MINT Verlag, Bad Woerishofen 1997-2017: 1-36.
3. G Kalmbach HE (2017) Deuteron States. Journal of Physics 1: 1-17.

4. T Poston, I Stewart (1978) Catastrophe theory and its applications, Pitman, London.

5. Internet video under YouTube: Moebius Transformations Revealed 2014.

6. Angular momentum operator - WikiVisually.html 2019

7. G Kalmbach, U Eberspaecher, MINT-Wigris Tool Bag, Bad Woerishofen 2019.