- Kaos Teorisi
- Yapay Zeka Algoritmaları
- Alan Modelleri
- İnstantonlar
- LHC-CMS
- Hava Durumu ve Atmosfer
- Sismik Veriler
- Optoelektronik Aygıtlar

Thirring System (Walter Thirring, 1958)

The equation of motion;

$$i\sigma_\mu \partial_\mu \psi + g\left(\overline{\psi}\psi\right)\psi = 0$$

Heisenberg Ansatz;

$$\psi = \left[ix_\mu \gamma_\mu \chi(s) + \varphi(s)\right]c$$

Dimensionless nonlinear coupled differential equation system;

$$2\dot{F}(z) + \frac{1}{2}F(z) - gAB(\overline{c}c)G(z)(F^2(z) + G^2(z)) = 0$$

$$2\dot{G}(z) - \frac{1}{2}G(z) + gAB(\overline{c}c)F(z)(F^2(z) + G^2(z)) = 0$$

Gursey System (Feza Gursey, 1956)

The equation of motion;

$$(i\gamma_\mu \partial_\mu \psi) + g(\overline{\psi}\psi)^{1/3}\psi = 0$$

Heisenberg Ansatz;

$$\psi = \left[ix_\mu \gamma_\mu \chi(s) + \varphi(s)\right]c$$

Dimensionless nonlinear coupled differential equation system;

$$2\dot{F}(z) + \frac{3}{2}F(z) - g(AB)^{\frac{1}{3}}(\overline{c}c)^{\frac{1}{3}}G(z)(F^2(z) + G^2(z))^{\frac{1}{3}} = 0$$

$$2\dot{G}(z) - \frac{3}{2}G(z) + g(AB)^{\frac{1}{3}}(\overline{c}c)^{\frac{1}{3}}F(z)(F^2(z) + G^2(z))^{\frac{1}{3}} = 0$$

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