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[illegible] *confined* [illegible] *extended* [illegible]

TJ-0-1.154, [illegible]

$$\vec{h}_{eff} = \nabla^2 \vec{m} + (h_0 + m_z)z, \quad (1)$$

$h_0(\mathbf{x},t)z$ ... $m_z z$. C ... H ... $H > M$. T ... $\sqrt{\frac{L}{Q-1}}$ ... $|\gamma|\mu_0 M (Q-1)$, ... $L / \sqrt{Q-1}$, ... $M (Q-1)$, ... $Q = H/M > 1$. W ... $L/\sqrt{Q-1}$ (... D ... R [17]). F ... C /N ... [19] ... 27 ... 17 ..., ... $\alpha \approx 0.01$, $Q \approx 1.25$, ... $M \approx 650$ A/ ... R ... [12] ... T ...

W ... $h_0 = \alpha = 0$, E . (1) ...

$$\mathcal{N} = \int (1 - \quad) d\mathbf{x}, \quad \mathcal{P} = \int (\quad - 1) \quad d\mathbf{x},$$

$$\mathcal{E}_0 = \frac{1}{2} \int |\quad|^2 + \quad^2 (1 + |\quad|^2)\, d\mathbf{x},$$

... M ... $\mathcal{N}$ ... $\mathcal{P}$ ... $\mathbf{V}$ ... ω.[17] T ... $(\mathcal{N},\mathcal{P})$ ... $(\omega,\mathbf{V})$. D ... [13] ...

$$\omega + |\mathbf{V}|^2/4 < 1, \quad \mathbf{V} \neq 0, \quad 0 < \omega < 1, \quad \mathbf{V} = 0. \qquad (2)$$

W ... $\omega < 0$.[17] T ... 1, ... S ... 0 ... [20] H ... W ... T ... [21] ... 5 ... 63 μ ... T ...

A ... $(\alpha \ll 1)$ ... $(|\nabla h_0|, |\partial_t h_0| \ll 1)$, ... h_0, ... T ... $(\omega,\mathbf{V})$, ... V-ω ...

A

U ... (..., R [22]), ... :

$$\frac{d\mathcal{N}}{dt} = -\alpha(\omega + h_0) \int \quad^2 \, d\mathbf{x} - \alpha \mathbf{V} \cdot \int \quad^2$$

300 ... E . (3)

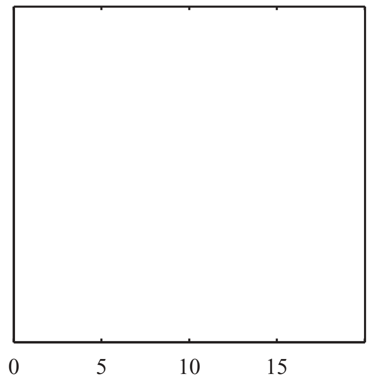
... $m_z = 0.5$. F ...
$\alpha = 0.01$, ... 3 μ ...
30 ... 15- A ... 3.3-μ ...
. T ... 600 / . ...
$\alpha = 0.001$, ... 10 μ ...
70 ... 10- A ... 10.3-μ ... .

$|\nabla h_0|/\alpha \ll 1$

T ... $|\nabla h_0|/\alpha \ll 1$, ... W ... F . 3, ... (3) ... *acceleration* ... 0 ... . W ... T ... 1D ... .[23] W ... (5). F E . (5) ... $\hat{P} = \hat{m}_{\text{eff}} V + m_{\text{eff}} \hat{V}$, ... , E . (3) ... $\hat{P} < 0$ ... . T ... ($\hat{V} > 0$) ...

$$\hat{m}_{\text{eff}} < \hat{P}/V < 0. \tag{6}$$

... A ... F . 3( ) ... 3( ) ... (6) ... $\omega > 0.3$ ... . W ... $-1 < h_0 < 0$, ... $(V,\omega) = (0,0)$ ... F . 3( ) ... *switching separatrix*. T ... $(V,\omega) = (0, -h_0)$. L ...


0
5
10
15