

$$\frac{d\mathbf{Q}}{dt} = \frac{c_p}{Fr} \frac{d\mathbf{I}}{dt} - \alpha \frac{d\mathbf{p}}{dt}$$

$$(u-c)\left(\tilde{\psi}_{yy}-k^2\tilde{\psi}\right)+(\beta-u_{yy})\tilde{\psi}=0$$

$$\mathcal{E}(\mathbf{k})=\mathcal{K}\epsilon^{2/3}k^{-5/3}$$

$$\frac{f_0}{N^2}\frac{\vec{v}'\cdot\vec{b}'\vec{k}}{D\mathbf{t}}\int\vec{v}\cdot d\vec{r}$$

$$\frac{\partial p}{\partial z}=-\rho g\left(\frac{v^3}{\epsilon}\right)^{1/4}$$

$$f_0(\vec{u}_1-\vec{u}_2)=g'$$

$$\theta=T\left(\frac{p_0}{p}\right)$$

$$m=(u+\Omega r\cos\vartheta)r\cos\vartheta$$

$$\omega=\overline{u}k-\frac{\beta k}{\kappa^2}$$

$$B=\frac{\vec{v}^2}{2}+c_pT+gz=\text{const}$$

$$\left.\int_0^{\frac{1}{2}}\left[\frac{1}{2N^2}\frac{g}{\partial_y\overline{b}}\right]_0^Hdy\right\}=0$$

$$\frac{\partial A}{\partial t}+\nabla\cdot\vec{f}=\frac{\partial}{\partial t}\left(\frac{f_0^2}{N^2}\frac{\partial}{\partial z}\right)$$

$$\Gamma_d=\frac{g}{g_0c_p}$$

$$-\frac{g}{\tilde{\rho}}\frac{\partial \tilde{\rho}}{\partial z}=2\omega\sin\phi$$

$$C=\oint\vec{v}\cdot d\vec{l}$$

$$Bu=\left(\frac{Ro}{Fr}\right)^2$$

$$\frac{D}{Dt}\left(\frac{\vec{\omega}_a\cdot\nabla\theta}{\omega^2}\right)=0$$

$$f=2\omega\sin\phi$$

$$c=\oint\vec{v}\cdot d\vec{l}$$

$$APE=\frac{R\tilde{\rho}_s}{2}\frac{c_u}{f_b}\int_0^{p_s}\frac{\partial A}{\partial t}+\nabla\cdot\vec{f}=\frac{\partial}{\partial t}\left(\frac{f_0^2}{N^2}\frac{\partial}{\partial z}\right)\theta'^2dp$$

$$\theta=\theta(0)-\frac{\theta_0\Omega^2y^4}{2gHa^2}$$

$$\frac{de_s}{dT}=\frac{L_c e_s}{R_v T^2}$$

$$\frac{1}{c_p}\left(\frac{\theta}{T}\right)\overline{Q}^0$$

$$\mathcal{F}=-\frac{c_p}{\psi}\frac{f_0}{N^2}\frac{\vec{v}'\cdot\vec{b}'\vec{k}}{D\mathbf{t}}\int\vec{v}\cdot d\vec{r}$$

$$\frac{D}{Dt}=-\frac{1}{\rho}\vec{F}\cdot\nabla+\vec{v}\cdot\nabla^2\vec{v}+\vec{F}\cdot\nabla$$

$$\psi=\text{Re}\psi e^{i(kx+ly+mz-\omega t)}$$

$$\frac{f_0}{N^2}\frac{\vec{v}'\cdot\vec{b}'\vec{k}}{D\mathbf{t}}\int\vec{v}\cdot d\vec{r}$$

$$\frac{D}{Dt}\left(\frac{A}{f_0R^2f_0}\right)$$

$$\frac{D}{Dt}\left(\frac{A}{f_0H}\frac{\partial}{\partial t}\right)\left\{\iint\frac{1}{2}\frac{\overline{q'^2}}{\partial_y\overline{q}}dydz\right\}$$

$$m=\int\left(\frac{1}{2N^2}\frac{f_0}{\partial_y\overline{b}}\right)_0^H$$

$$\frac{L_v}{N^2}\sim\left(\frac{v^3}{\epsilon}\right)^{1/4}$$