FAKTORE INTEGRATZAILEAREN ESANGURA FISIKOA

BERO-ITURRIA

SISTEMA NAGUSIA	ERREFERENTZIA-SISTEMA
t, X, X'	$t, \hat{X}, \hat{X}'$
$\sigma = \sigma(t, X, X')$	$\hat{\sigma} = \hat{\sigma}(t, \hat{X}, \hat{X}')$
$\lambda = \lambda(t, \sigma, X)$	$\hat{\lambda} = \hat{\lambda}(t, \hat{\sigma}, \hat{X})$

ALDAGAI INDEPENDENTEAK
GAINAZAL ADIABATIKO ITG.
FAKTORE INTEGRATZAILEA
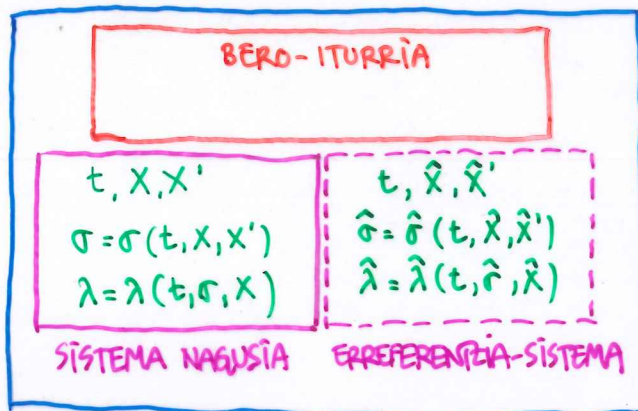
SISTEMA KONPOSATUA

$$\left(t, X, X', \hat{X}, \hat{X}'\right) \rightarrow \left\{t, \sigma, X, \hat{\sigma}, \hat{X}\right\}$$

$$\bar{\sigma} = \bar{\sigma}(t, \sigma, X, \hat{\sigma}, \hat{X})$$
$$\bar{\lambda} = \bar{\lambda}(t, \sigma, X, \hat{\sigma}, \hat{X})$$

*
$$\delta\bar{Q} = \delta Q + \delta\hat{Q}$$
$$\bar{\lambda}\,d\bar{\sigma} = \lambda\,d\sigma + \hat{\lambda}\,d\hat{\sigma}$$
$$\boxed{d\bar{\sigma} = \frac{\lambda}{\bar{\lambda}}\,d\sigma + \frac{\hat{\lambda}}{\bar{\lambda}}\,d\hat{\sigma}}$$

*
$$\bar{\sigma} \longrightarrow \bar{\sigma} + d\bar{\sigma}$$

$$\boxed{d\bar{\sigma} = \left(\frac{\partial\bar{\sigma}}{\partial t}\right)_{\sigma, X, \hat{\sigma}, \hat{X}} dt + \left(\frac{\partial\bar{\sigma}}{\partial\sigma}\right)_{t, X, \hat{\sigma}, \hat{X}} d\sigma + \left(\frac{\partial\bar{\sigma}}{\partial X}\right)_{t, \sigma, \hat{\sigma}, \hat{X}} dX + \left(\frac{\partial\bar{\sigma}}{\partial\hat{\sigma}}\right)_{t, X, \sigma, \hat{X}} d\hat{\sigma} + \left(\frac{\partial\bar{\sigma}}{\partial\hat{X}}\right)_{t, \sigma, X, \hat{\sigma}} d\hat{X}}$$

$$\delta Q = \lambda\,d\sigma \Rightarrow \boxed{\delta Q = \phi(t)\,f(\sigma)\,d\sigma}$$

{ - FAKTORE INTEGRATZAILEA (SISTEMA)
  - TENPERATURAREN FUNTZIOA SOILIK
  - FUNTZIO UNIBERTSALA