$u_t(x,t) = d_t f(x - c_2 t)$

$$F_0 \frac{\partial^2 u}{\partial x^2} - \mu \frac{\partial^2 u}{\partial t^2} = 0 = F_0 \frac{\partial^2 u}{\partial (x-c_2 t)^2} \frac{\partial (x-c_2 t)^2}{\partial x^2} - \mu \frac{\partial^2 u}{\partial (x-c_2 t)^2} \frac{\partial (x-c_2 t)^2}{\partial t^2}$$

$F_0 - d_t \mu c_2^2 = 0$

$\Longleftrightarrow \quad c_2 = \pm\sqrt{\frac{F_0}{d_t \mu}}$

c)

$u$ muss stetig (und 2mal diff'bar) sein.

$\frac{\partial u}{\partial x}$ muss stetig (und diff'bar) sein

d)

$d_t = -c_2^{-2} \mu^{-1} E$ ?

$u_r(x,t) = d_r f(-x - c_1 t)$

$$F_0 \frac{\partial^2 u}{\partial (-x-c_1 t)^2} \frac{\partial (-x-c_1 t)^2}{\partial x^2} + \mu \frac{\partial^2 u}{\partial (-x-c_1 t)} \frac{\partial (-x-c_1 t)^2}{\partial t^2}$$

$F_0 + \mu\, d_r c_1^2 = 0 \Longleftrightarrow d_r = -F c_1^{-2} \mu^{-1}$

...

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