

Triangolo caratteristico

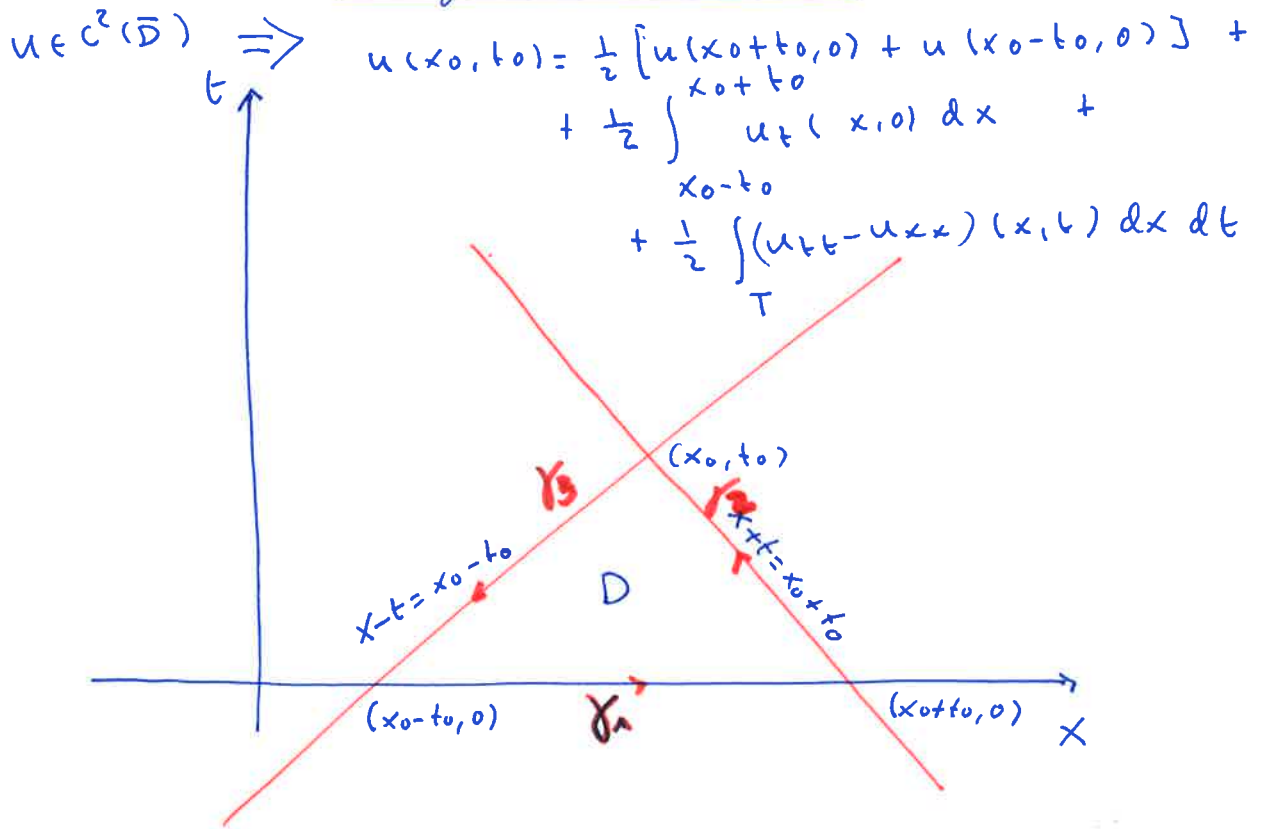
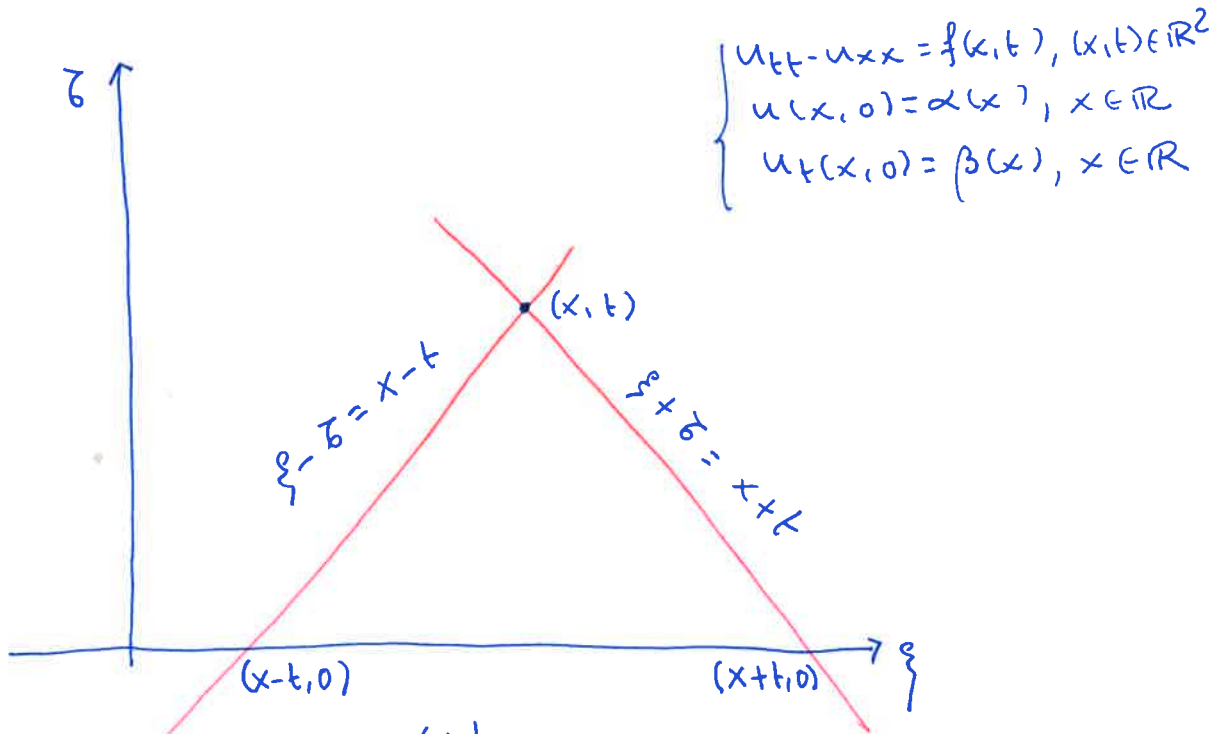


Fig. 1



$$u(x, t) = \frac{1}{2} [u(x-t, 0) + u(x+t, 0)] + \frac{1}{2} \int_{x-t}^{x+t} u_t(s, 0) ds + \frac{1}{2} \int_{\tau=0}^t \int_{\xi=\tau+x-t}^{-\tau+x+t} (u_{tt} - u_{xx})(\xi, \tau) d\xi d\tau$$

$$= \frac{1}{2} [\alpha(x-t) + \alpha(x+t)] + \frac{1}{2} \int_{x-t}^{x+t} \beta(s) ds + \frac{1}{2} \int_{\tau=0}^t \int_{\xi=\tau+x-t}^{-\tau+x+t} f(\xi, \tau) d\xi d\tau$$