

Characterization of tapering functions and their

fourier transform

time range:

- real, even and positive energy signals

$$\Rightarrow w(t) \geq 0$$

$$w(-t) = w(t)$$

- compact structure for

\Rightarrow energy of the signal is focused in the center

- normalized to the energy of the signal:

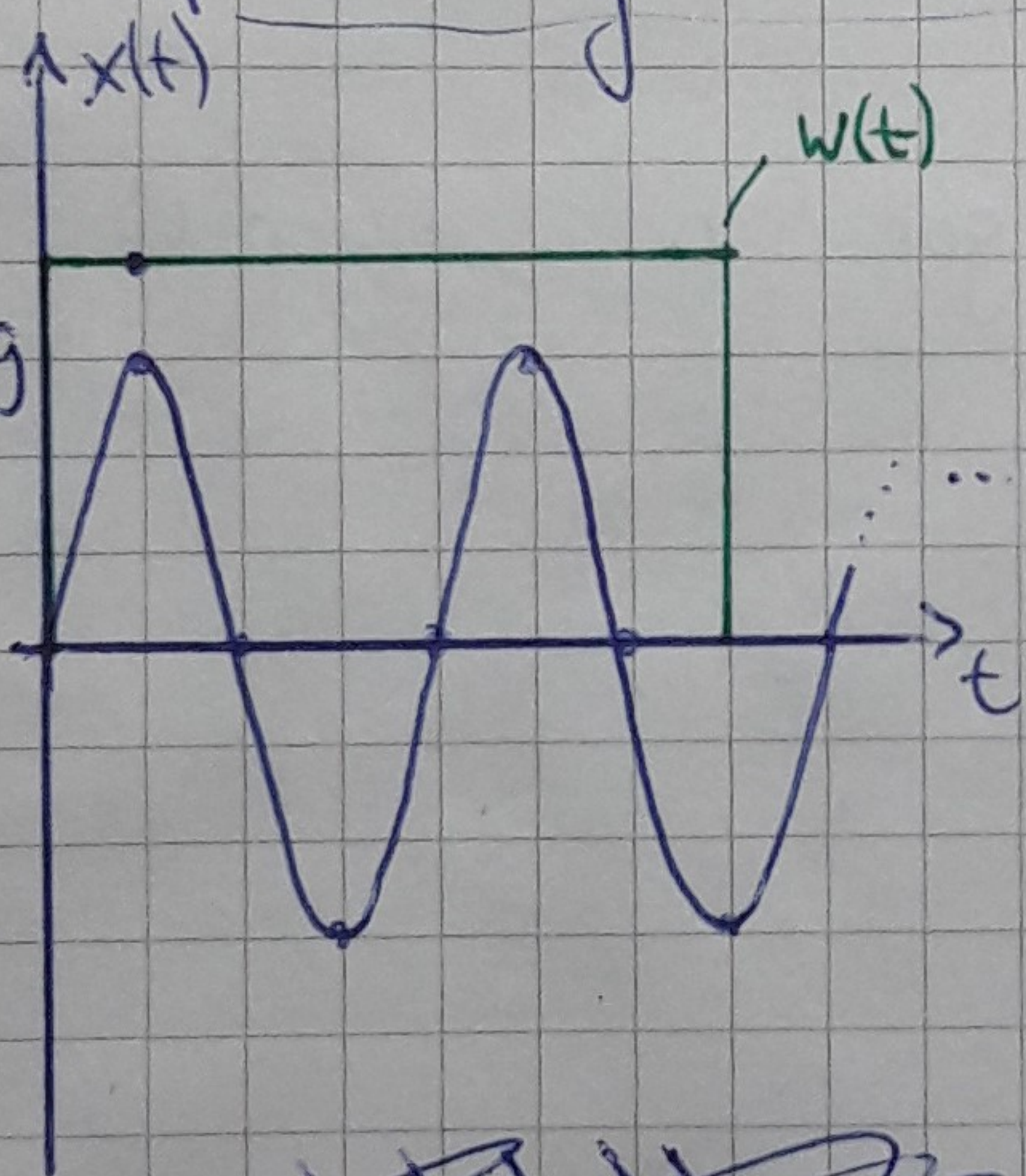
$$\|w(t)\|^2 = \|W(f)\|^2 = 1$$

- margins of the taper functions converge to zero

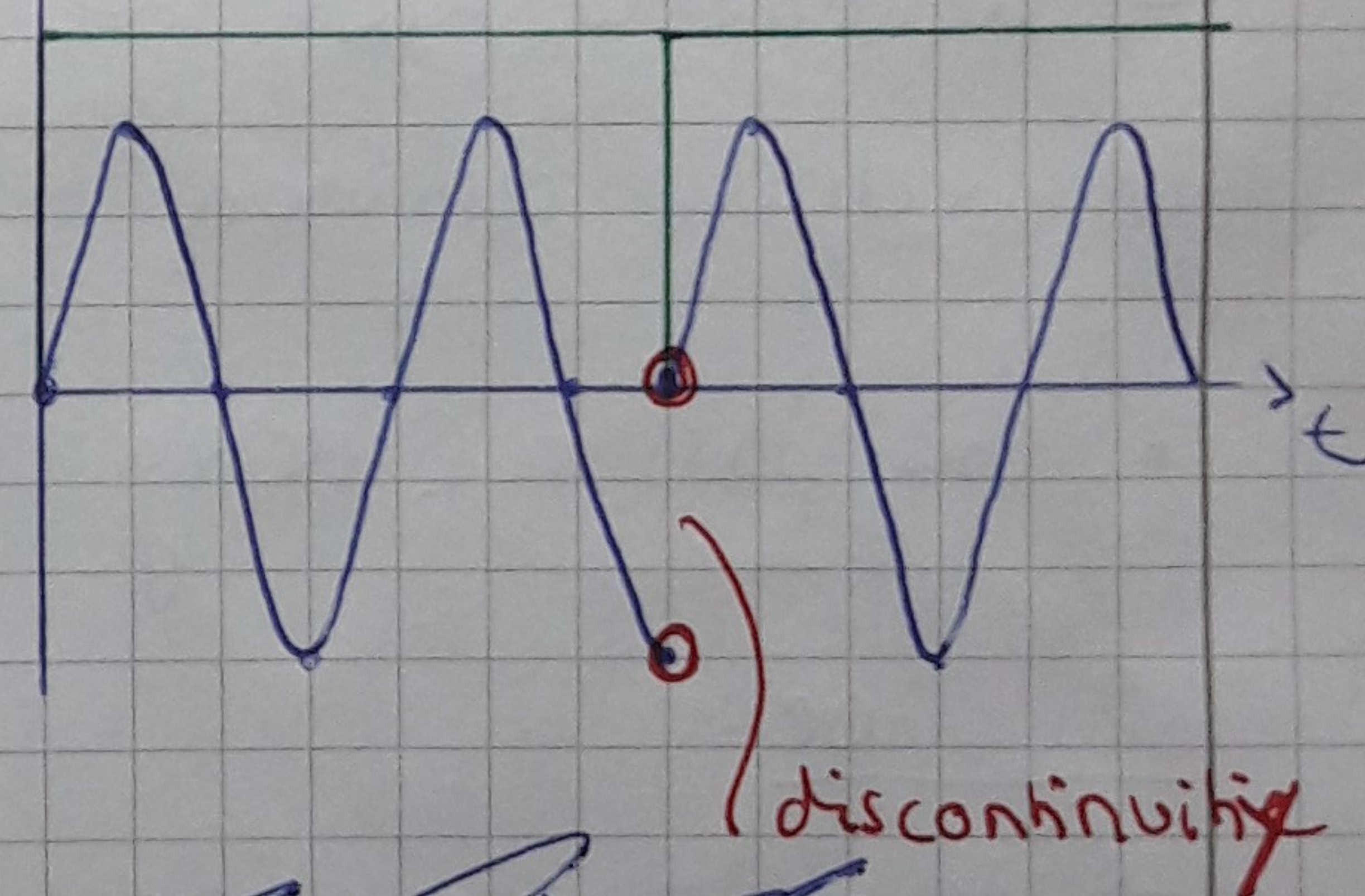
for preventing discontinuities

example

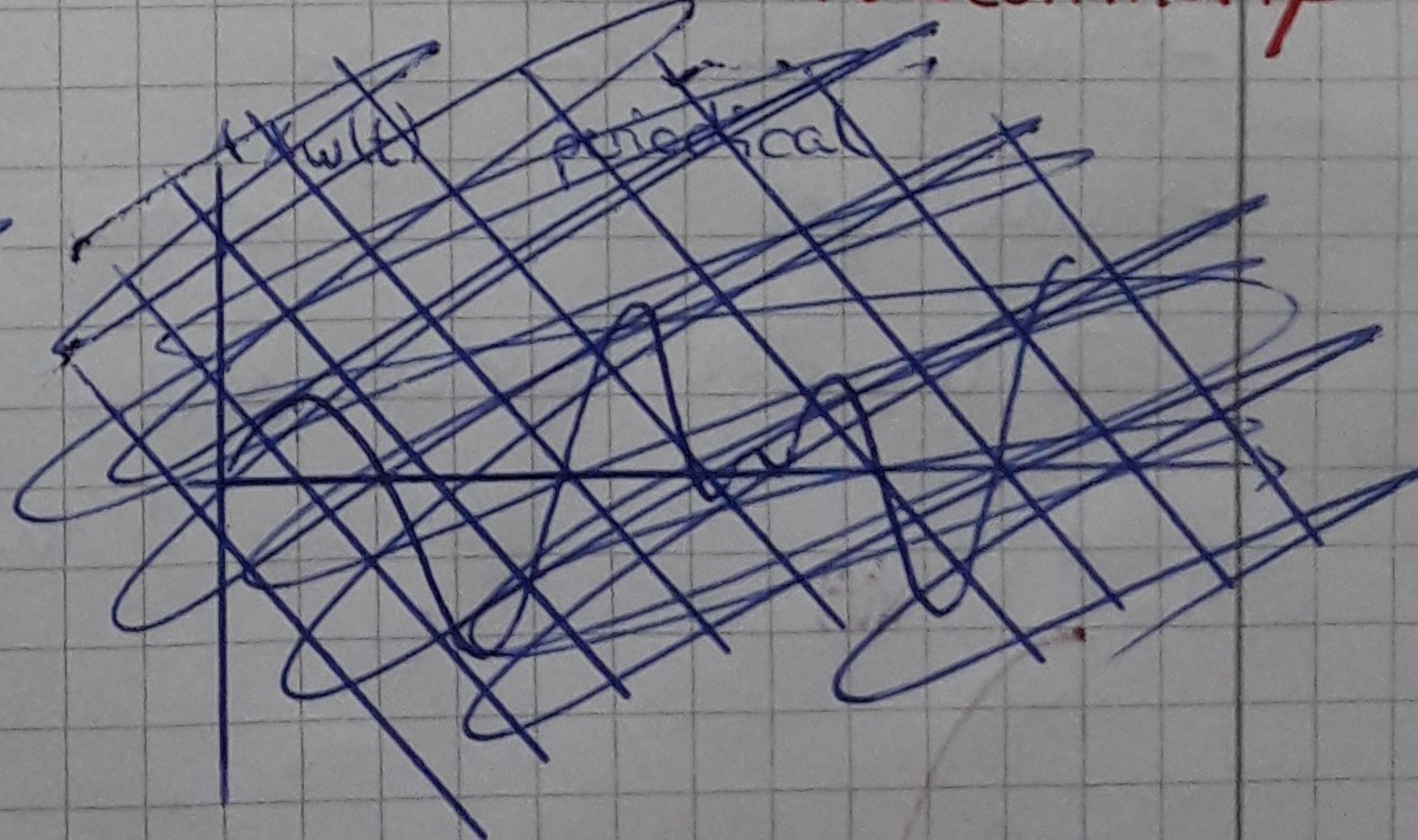
non converging
margins



~~x_w(t)~~ periodical



discontinuity



converging
margins

