

We used a gaussian filter, as it doesn't produce significant artifacts, as e.g. the pillbox filter could.

In our experiments, the sigma of 4 px gave the best results.

We used the formula

$$G(u) = e^{(-2\pi^2 \sigma^2 d^2)} \quad \text{where the } d \text{ is the distance from central point.}$$

We used this formulation, as it reaches the value of 1 near the center - which results in no change of the lowest frequencies.

We performed the filtering only in the x direction, as the artifacts are vertical lines.

On both images, there were small artifacts on edges caused by border discontinuities.

Filtering using a pillbox filter would show some artifacts on edges of the building on the record image.