

**FIG. 4** Gaussian surfaces of the same RMS height (0.5 mm) but different correlation lengths. The correlation length,  $\lambda_0$ , controls the rate of change of surface height with distance along the surface.

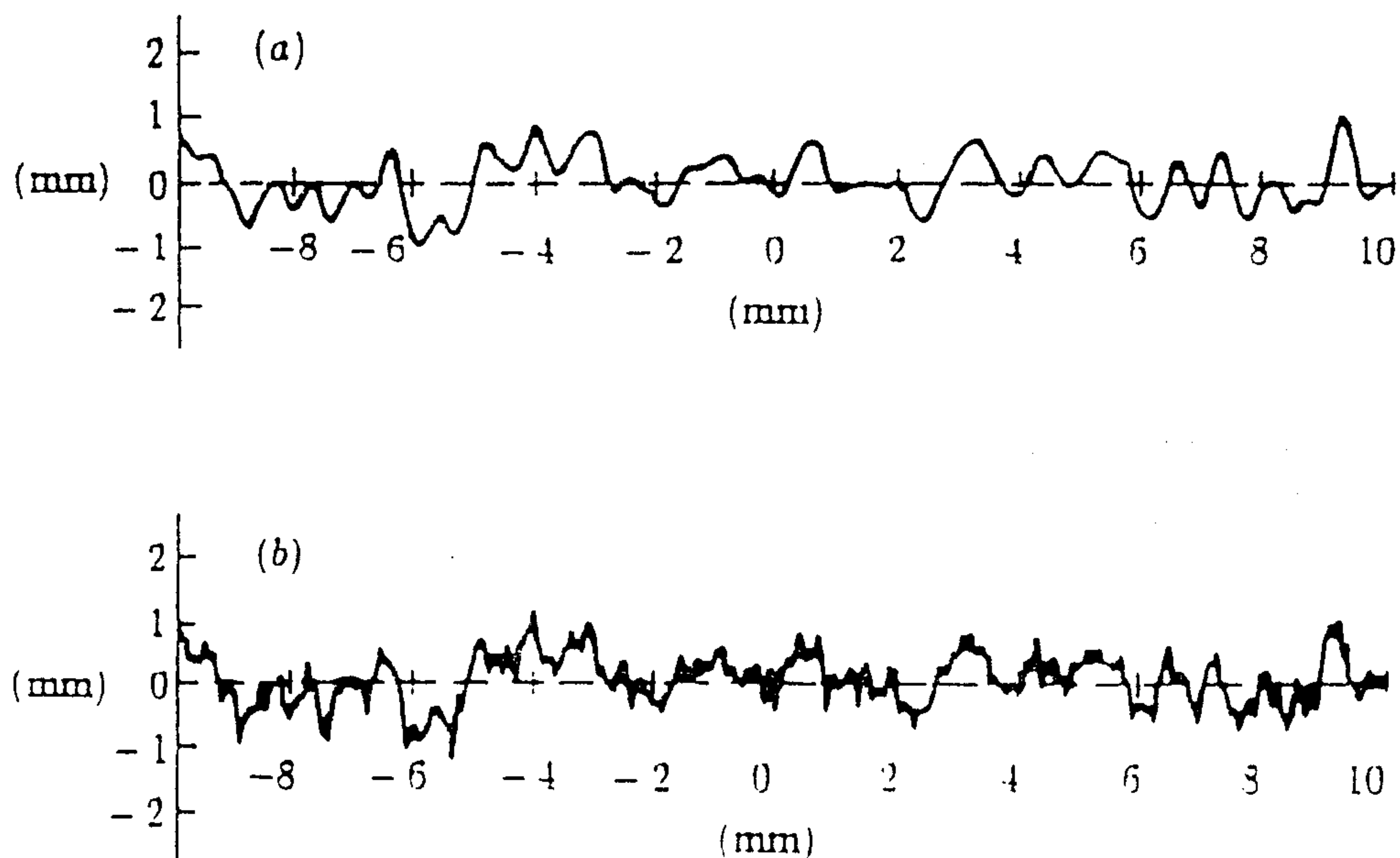


Fig 2 Rough surfaces of correlation length 0.3 mm. (a) Gaussian correlation function, (b) exponential correlation function, showing the short-wavelength roughness that arises from the high-frequency tail of the power spectrum seen in figure 3

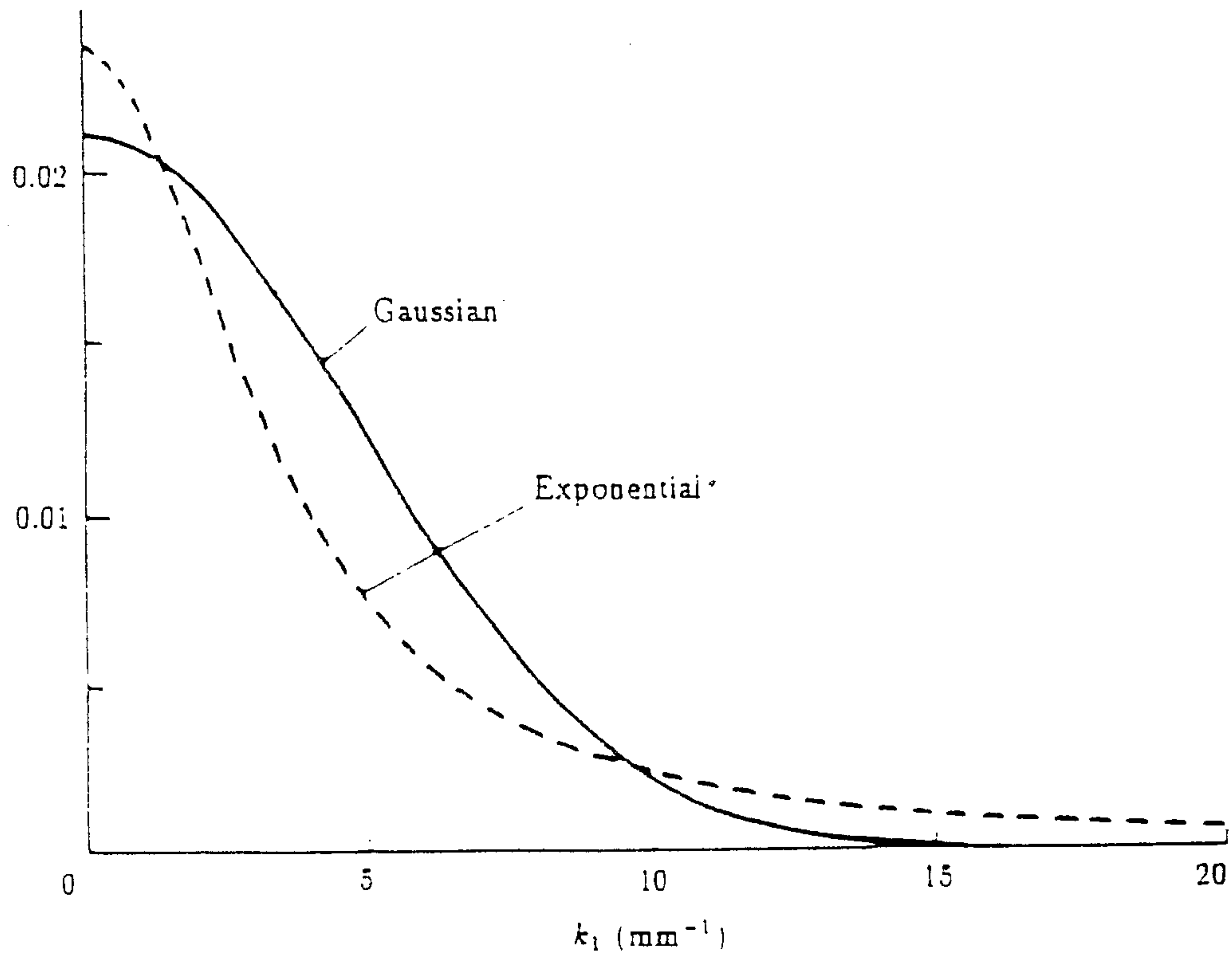


Fig 3 Power spectra for surfaces of RMS heights 0.5 mm, with Gaussian and exponential correlation functions both of correlation length 0.3 mm. The exponential function has a longer high-frequency tail than the Gaussian function, indicating the presence of high-frequency components as seen in figure 2