7. Appendix

7.1. Transformation equations between point and line spread functions

For an isotropic PSF $\mathscr{P}$ and the corresponding LSF $\mathscr{L}$ the following equations apply [32]:

$$\mathscr{L}(x) = \int_{-\infty}^{\infty} \mathscr{P}(\sqrt{x^2+y^2})\,\mathrm{d}y \tag{26}$$

$$\mathscr{P}(r) = -\frac{2}{\pi}\int_{0}^{\infty} A'(v^2+r^2)\,\mathrm{d}v \tag{27}$$

$$A(x) = \mathscr{L}(x^2)$$

where the origin $(x,y) = (0,0)$ is chosen at the point of symmetry and the prime indicates differentiation with respect to $t = v^2 + r^2$.

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