初期視覚における正則化

問題	正則化原理
Edge detection	$\int [(Sf - i)^2 + \lambda (f_{xx})^2] \, \mathrm{d}x$
Optical flow (area based)	$\int [i_x u + i_y v + i_t)^2 + \lambda (u_x^2 + u_y^2 + v_x^2 + v_y^2)] \, \mathrm{d}x \, \mathrm{d}y$
Optical flow (contour based)	$\int [(\boldsymbol{V} \cdot \boldsymbol{N} - V^N)^2 + \lambda ((\partial / \partial_s) \boldsymbol{V})^2] \, \mathrm{d}s$
Surface reconstruction	$\int [S \cdot f - d)^2 + \lambda (f_{xx}^2 + 2 f_{xy}^2 + f_{yy}^2)^2] \, \mathrm{d}x \, \mathrm{d}y$
Spatiotemporal approximation	$\int [(S \cdot f - i)^2 + \lambda (\nabla f \cdot \boldsymbol{V} + f_t)^2] \, \mathrm{d}x \, \mathrm{d}y \, \mathrm{d}t$
Colour	$\| I^\nu - Az \|^2 + \lambda \| Pz \|^2$
Shape from shading	$\int [(E - R(f, g))^2 + \lambda (f_x^2 + f_y^2 + g_x^2 + g_y^2)] \, \mathrm{d}x \, \mathrm{d}y$
Stereo	$\int \{[\nabla^2 G * (L(x, y) - R(x + d(x, y), y))]^2 + \lambda (\nabla d)^2\} \, \mathrm{d}x \, \mathrm{d}y$