



































versie: 15/11/2006 © W. Philips, Universiteit Gent, 1998-2006 Spatial frequencies	
Sinusoidal intensity: b	$p(x, y) = B + A\cos\left(2\pi f_x x\right)$
$\Rightarrow$ max. intensity: $M=B+A$ ;	min. intensity: $m=B-A$
Definitie: contrast of the pattern:	$C = \frac{M-m}{M+m}$ here: $C = \frac{A}{B}$
$\begin{array}{c} A_{\text{ref}}, f_{\text{x,ref}} \\ A, f \end{array} \\ \end{array} \\ \begin{array}{c} \text{Experiment: for a given } f, \text{ adjust } A \text{ so that white} \\ \text{bands look equally white in both patterns} \\ \text{Tabulate } A_{\text{ref}}/A \text{ as a function of } f \end{array}$	
$\begin{bmatrix} 10\\ 6 \end{bmatrix}$ relateve sensitivity $A_{\rm ref}/A$	Conclusion: the perceived contrast"
4	<ul> <li>Depends on the spatial frequency</li> </ul>
	<ul> <li>Is zero at high frequencies</li> </ul>
	Explanation: very fine pattern will apear as uniform gray
	Remark: effective frequency depends
Spatial frequency $f$ (cycles/deg.)	oib.18







