

PPP

$$\underline{2-28} \quad \text{Gauss} \quad \frac{1}{s_1} + \frac{1}{s_1'} = \frac{1}{f} \quad \frac{1}{s_2} + \frac{1}{s_2'} = \frac{1}{f}$$

Taxfel: "Transverse magnification" verkar inte vara definierat eftersom antag att de mer än linjära förstärkningen  $M$ .

Uttryck  $m_1$  i  $s_1$  och  $f$

$$M_1 = -\frac{s_1}{s_1'}$$

$$\text{Gauss} \Rightarrow \frac{s_1}{s_1} + \frac{s_2}{s_1'} = \frac{s_1}{f} \Rightarrow \left( \frac{1}{M_1} - \frac{s_2}{s_1'} = 1 - \frac{s_1}{f} \right)$$

$$\frac{1}{M_2} = 1 - \frac{s_2}{f}$$

$$\text{Nämneren} = \frac{1}{M_1} - \frac{1}{M_2} = \frac{s_2}{f} - \frac{s_1}{f}$$

$$HL = \frac{s_2 - s_1}{\frac{s_2}{f} - \frac{s_1}{f}} = \frac{s_2 - s_1}{(s_2 - s_1)/f} = \underline{\underline{f}}$$

Omvänt:  $s_1' = \frac{1}{\frac{1}{f} - \frac{1}{s_1}} \Rightarrow M_1 = -\frac{1}{\frac{s_1}{f} - 1}$

$$\Rightarrow \frac{1}{M_1} - \frac{1}{M_2} = \left(1 - \frac{s_1}{f}\right) - \left(1 - \frac{s_2}{f}\right) = \frac{s_2 - s_1}{f} \quad \underline{\underline{\text{igen.}}}$$