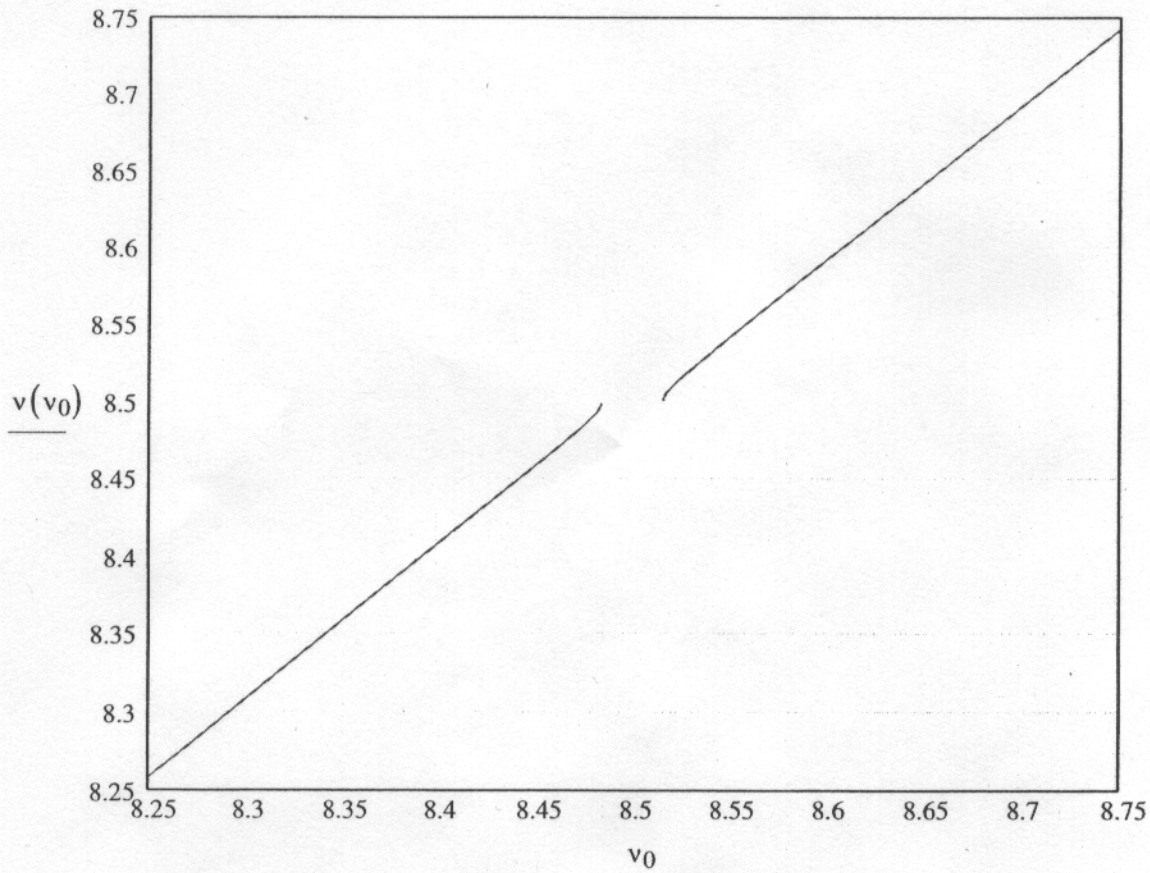
STop band

Half integer Stopband Beta at the quad $\beta_0 := 20 \cdot m$ Quad error: $q := \frac{1}{200 \cdot m}$

Half the trace of M: (should between +1 and -1) $TrM_2(\nu_0) := \cos(2 \cdot \pi \cdot \nu_0) - \frac{1}{2} \cdot \beta_0 \cdot q \cdot \sin(2 \cdot \pi \cdot \nu_0)$

$$\frac{1}{4 \cdot \pi} \cdot \beta_0 \cdot q = 7.958 \times 10^{-3}$$

New tune:

$$\nu(\nu_0) := \begin{cases} \left(\frac{1}{2 \cdot \pi} \cdot \operatorname{acos}\left(\cos(2 \cdot \pi \cdot \nu_0) - \frac{1}{2} \cdot \beta_0 \cdot q \cdot \sin(2 \cdot \pi \cdot \nu_0)\right)\right) + 8 & \text{if } \nu_0 \le 8.5 \\ \left[\frac{1}{2 \cdot \pi} \cdot \operatorname{acos}\left[\cos[2 \cdot \pi \cdot (8.5 - \nu_0)] - \frac{1}{2} \cdot \beta_0 \cdot q \cdot \sin[2 \cdot \pi \cdot (8.5 - \nu_0)]\right]\right] + 8.5 & \text{if } \nu_0 > 8.5 \end{cases}$$

$\nu_0 := 8.25, 8.2501 .. 8.75$ $\nu(8.25) = 8.258$