

Computational details

Computational technique	BEM, Burton & Miller technique, collocation, discontinuous linear elements, GMRes solver
Computed results	Shown in Figures 1–4
Programming details	Akusta, non-commercial Fortran90 code
Code accessibility	Possible on request and under certain conditions (at S. Marburg)
Processing details	
Computational complexity	
Notes	
References	
Contributing institute	LRT4–Institute of Mechanics Universität der Bundeswehr Werner–Heisenberg–Weg 39 D–85579 Neubiberg Germany

Solution

Receiver location point P_8 : $(x, y, z) = (-\frac{2R}{\sqrt{3}}, -\frac{2R}{\sqrt{3}}, -\frac{2R}{\sqrt{3}})$, sound pressure level in Figure 1

Receiver location point P_9 : $(x, y, z) = (-\frac{10R}{\sqrt{3}}, -\frac{10R}{\sqrt{3}}, -\frac{10R}{\sqrt{3}})$, sound pressure level in Figure 2

Receiver location point P_{10} : $(x, y, z) = (\frac{R}{10}, \frac{R}{10}, \frac{R}{100})$, sound pressure level in Figure 3

Receiver location point P_{11} : $(x, y, z) = (\frac{R}{2}, \frac{R}{2}, \frac{R}{20})$, sound pressure level in Figure 4

Additional Figures

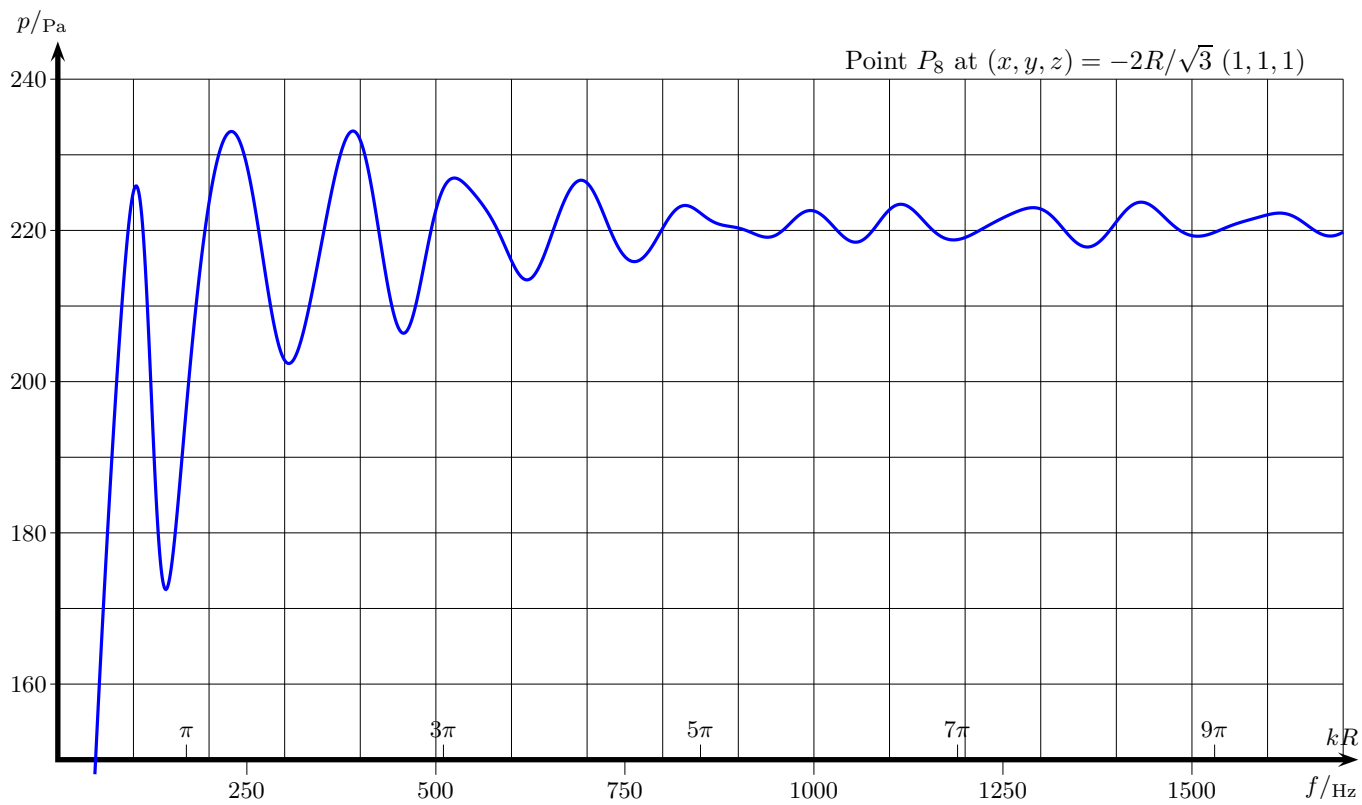


Figure 1: Sound pressure at point P_8 at $(x, y, z) = (-\frac{2R}{\sqrt{3}}, -\frac{2R}{\sqrt{3}}, -\frac{2R}{\sqrt{3}})$.

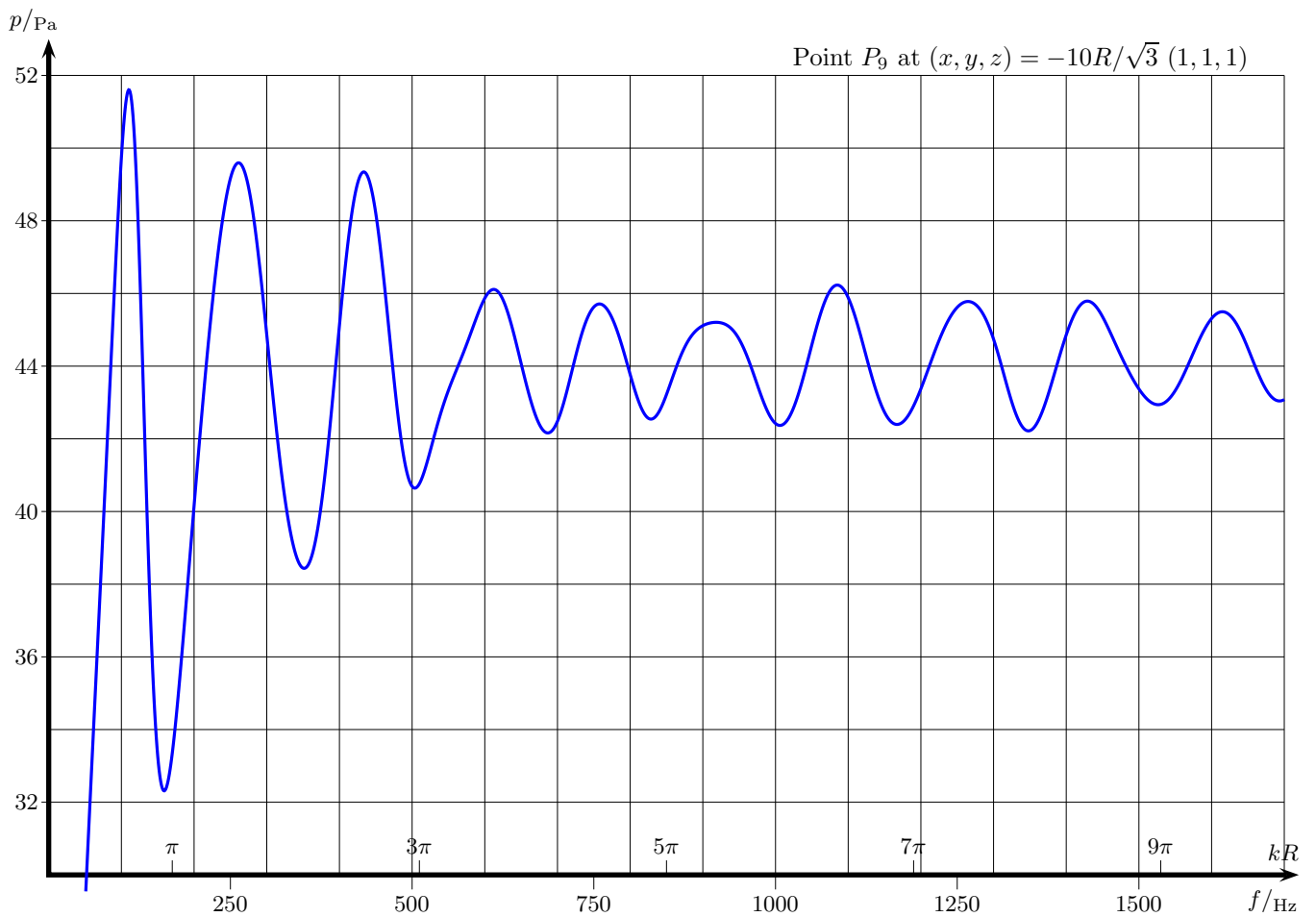


Figure 2: Sound pressure at point P_9 at $(x, y, z) = (-\frac{10R}{\sqrt{3}}, -\frac{10R}{\sqrt{3}}, -\frac{10R}{\sqrt{3}})$.

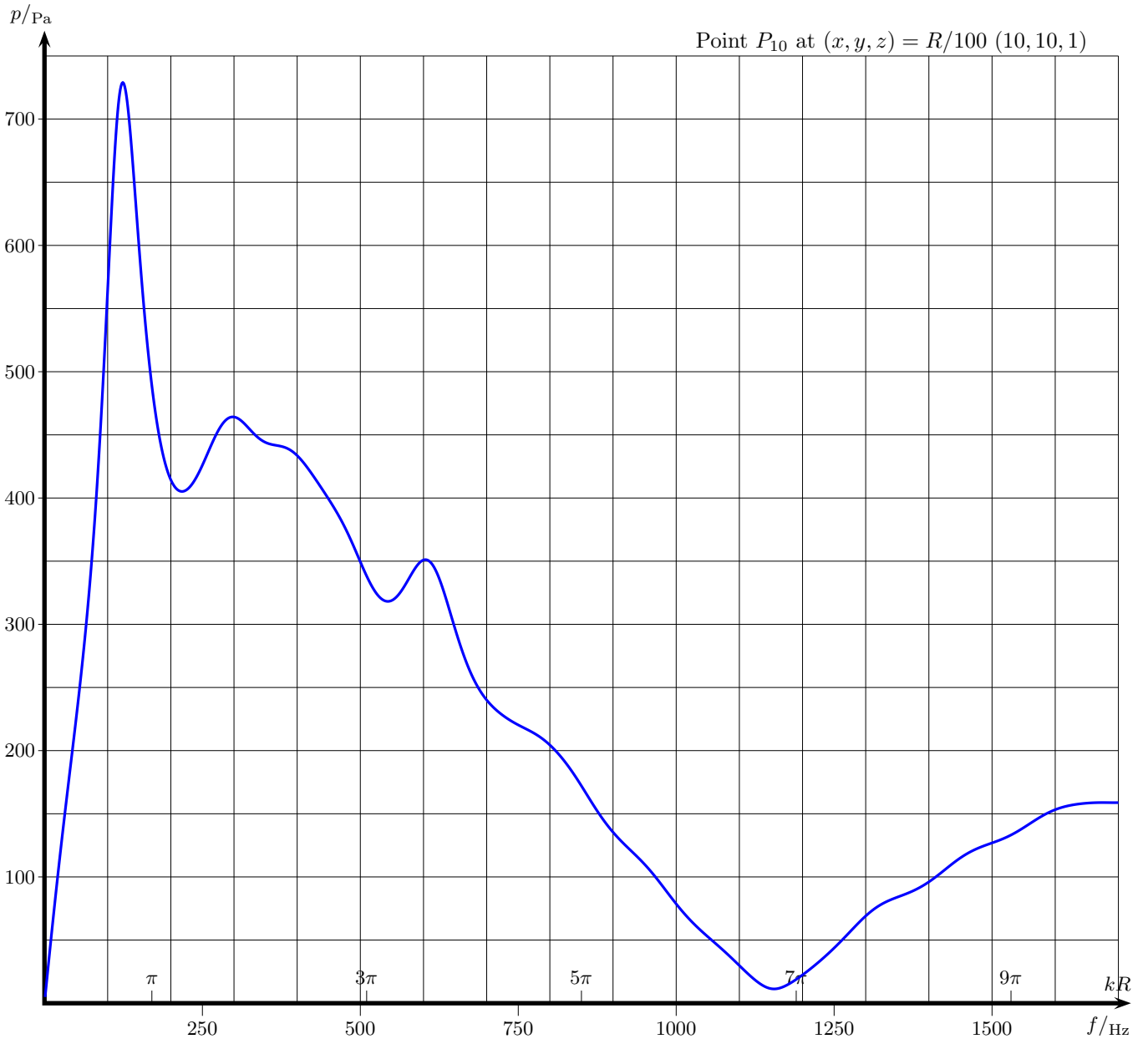


Figure 3: Sound pressure at point P_{10} at $(x, y, z) = (\frac{R}{10}, \frac{R}{10}, \frac{R}{100})$.

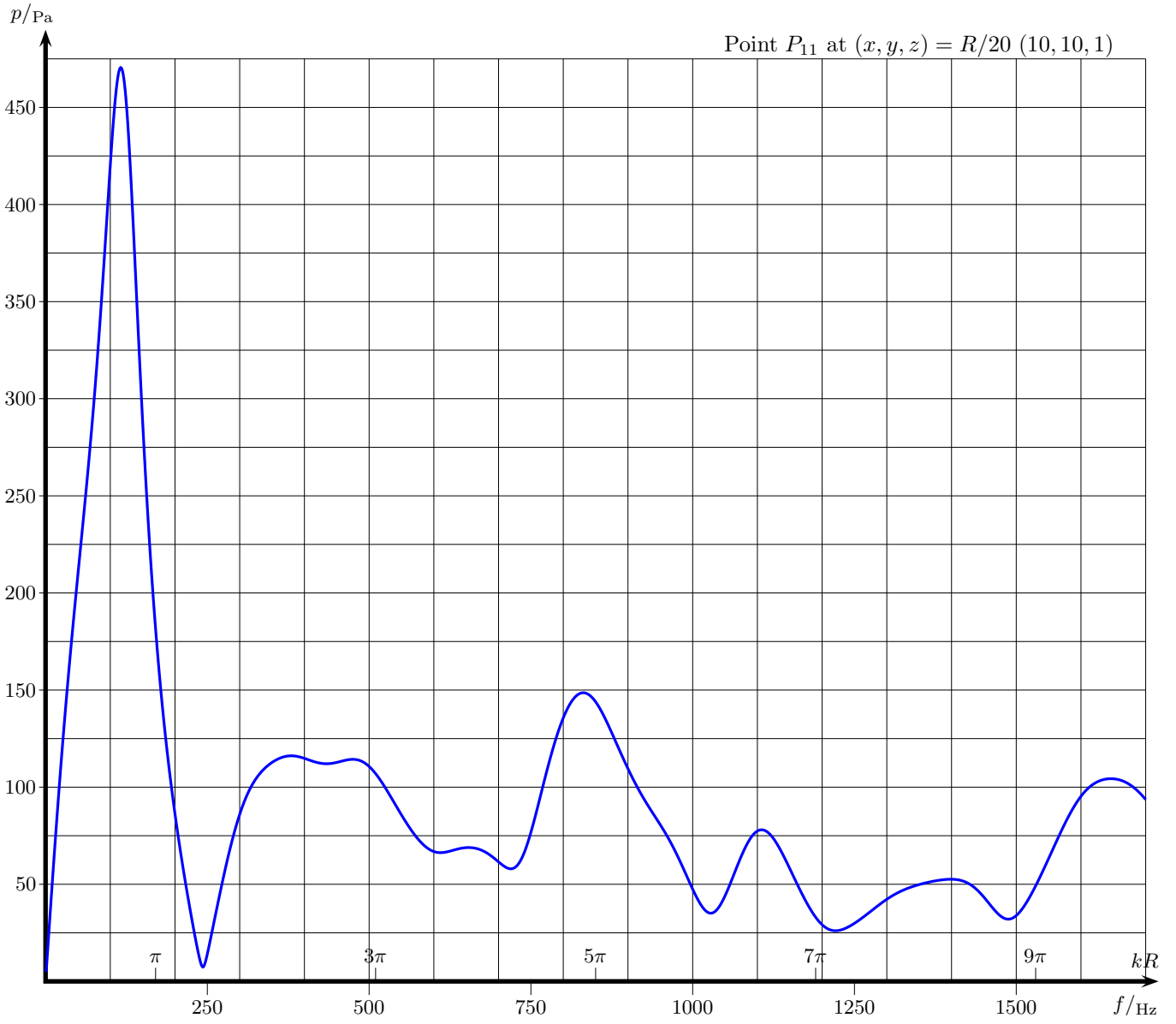


Figure 4: Sound pressure at point P_{11} at $(x, y, z) = (\frac{R}{2}, \frac{R}{2}, \frac{R}{20})$.