

The Doppler Effect

*How does the Doppler Effect affect sound emitted from
a source travelling in a circular motion?*

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Contents

1	Introduction	1
2	Aim	1
3	Data	1
4	Error Discussion	4

1 Introduction

As a musician, I find the physics behind music and sound in general to be extremely fascinating. As I discovered the doppler effect, I was immediately intrigued by its potential effect on music, hence this report.

2 Aim

I will be analysing the effect of the doppler effect on a sound source undergoing circular motion.

3 Data

Figure ?? plots the data points I collected when the radius of the string was 2m.

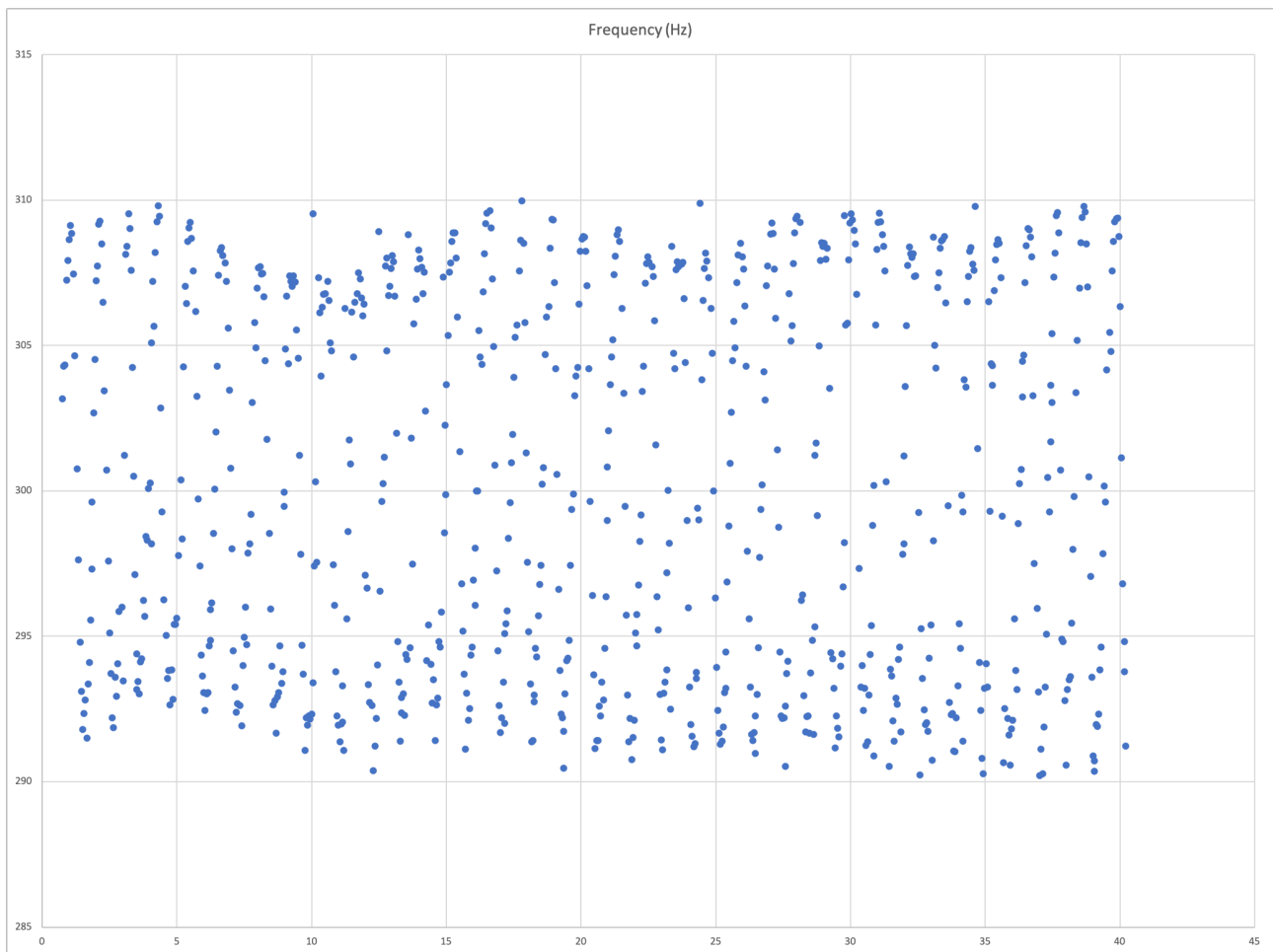


Figure 1: The variation of a 300Hz sound - Radius: 2m, Distance from center: 5m

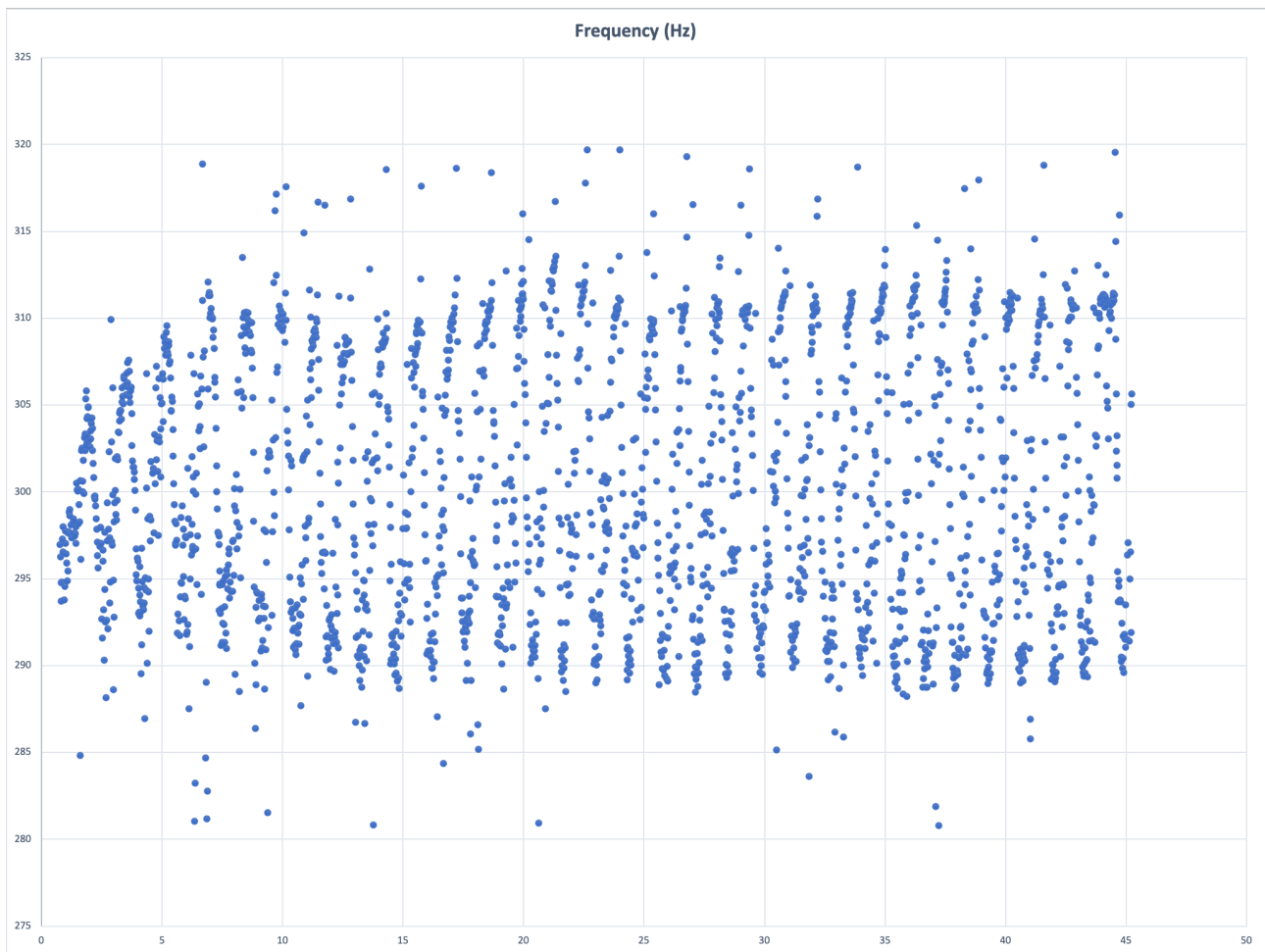


Figure 2: The variation of a 300Hz sound - Radius: 3m, Distance from center: 5m

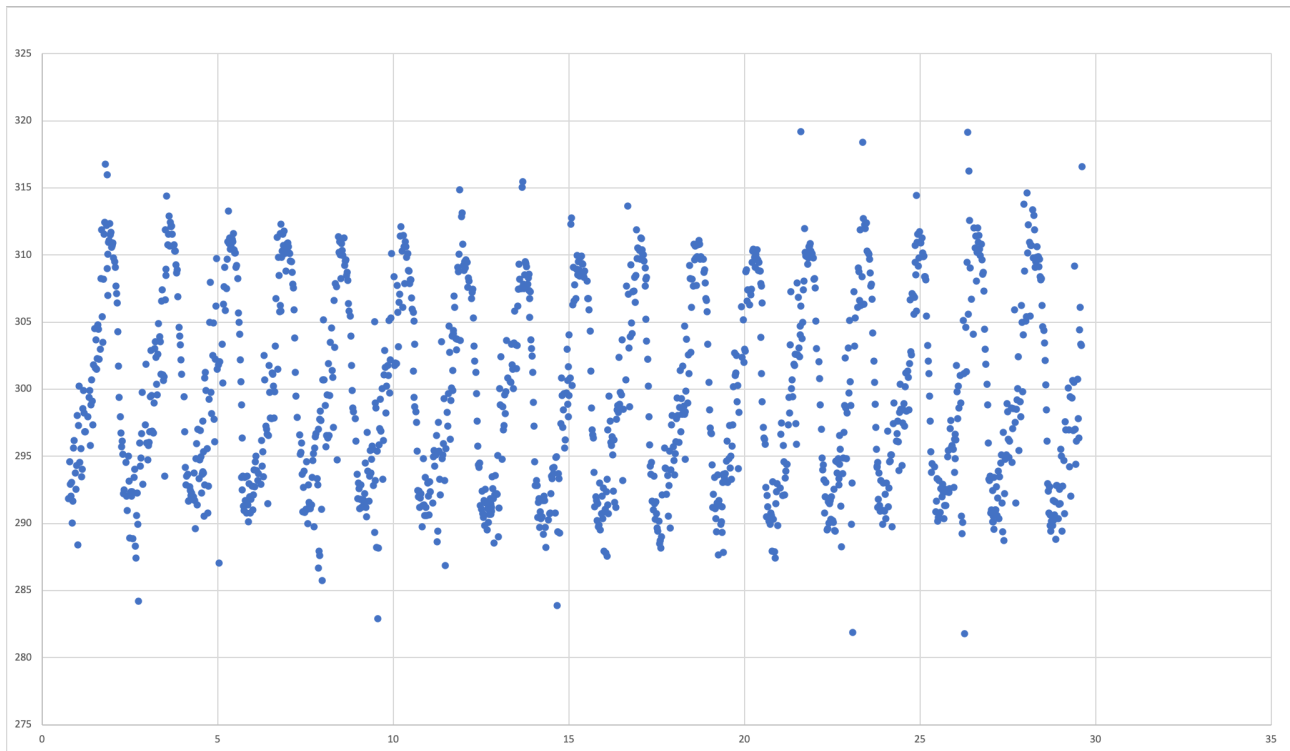


Figure 3: The variation of a 300Hz sound - Radius: 3.2m, Distance from center: 5m

4 Error Discussion

since textbook values are difficult to reproduce in an experimental setting.