A Review of Articulatory Speech Synthesis Errata

Pertti Palo

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General

This errata should not be considered an official part of my thesis. Rather, it is a collection of notes and corrections formed after the actual thesis (as presented in the file isoD.pdf) had been accepted.

Webster's Horn Equation

It has been brought to my attention that the derivation of Webster's horn equation as I have presented it in appendix A is not actually valid. This was first pointed out to me by lecturer Seppo Uosukainen, for which he has my thanks.

The flaw in the argument can be seen, if some of the terms, which in the thesis are left out as small, are instead left in. If we then take similar steps as in the thesis, they will not lead to Webster's equation. Instead, they will lead to the ordinary (homogenous) 1D wave equation.

However, this should not be taken as proof against the validity of Webster's equation as there are several perfectly valid ways of deriving it.