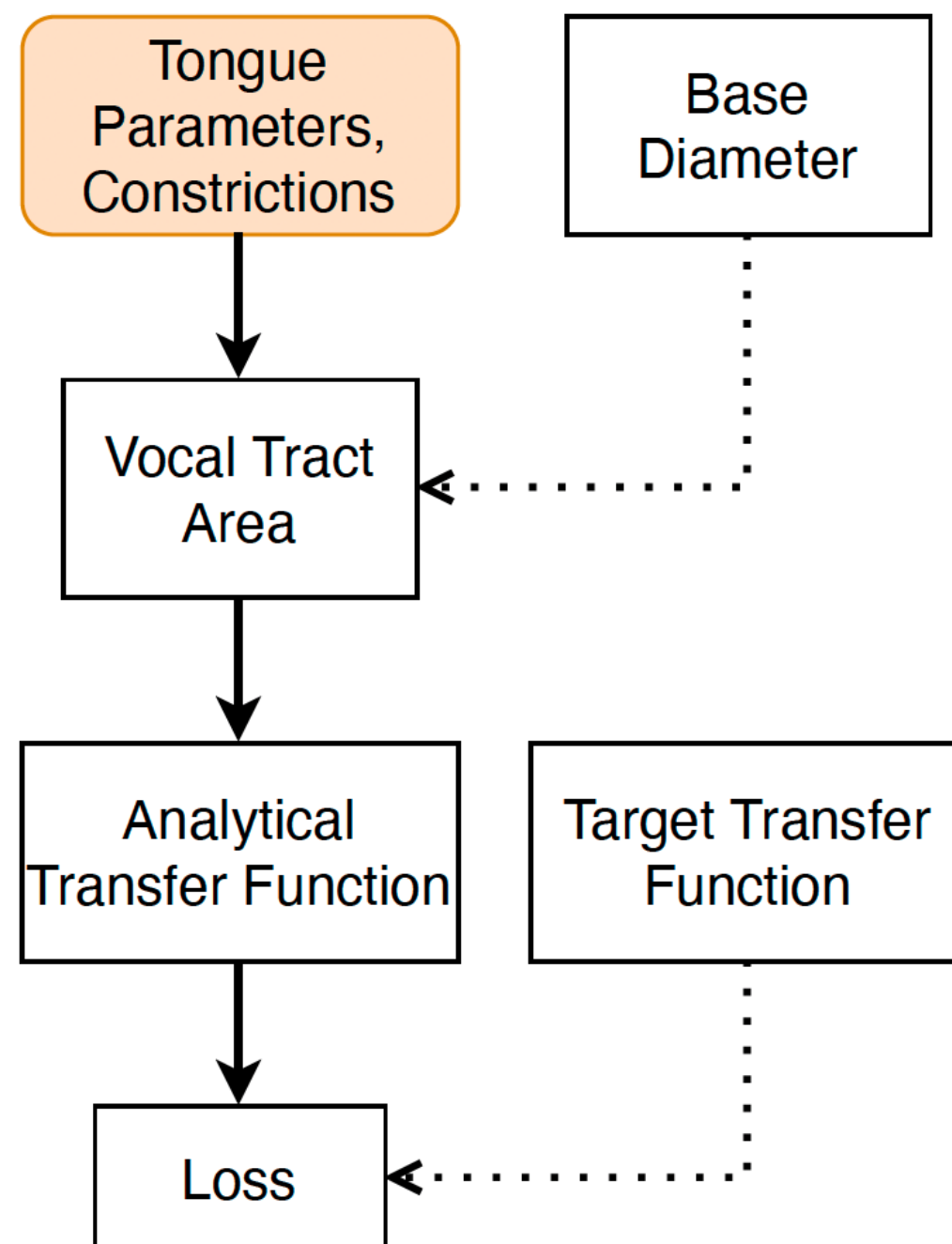# Machine learning of physical models for voice synthesis

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Finding

In the task of sound matching simple physical models of voice production to real human recordings, white-box optimization with gradient descent and differentiable operations outperforms black-box parameter prediction.

Question

With the goal of matching a digital waveguide to a target pitch, can the length of a fractional delay line be estimated using differentiable allpass filters?

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