

ELEC 221 Lecture 19

Hands on: the Karplus-Strong algorithm

Tuesday 15 November 2022

Announcements

- Midterm 2 postmortem
- No quiz today (Quiz 9 next Tuesday)
- Assignment 6 development in progress

Today: let's synthesize some music

Hands-on activity! See Homework 5.5 in PrairieLearn.

We will implement the **Karplus-Strong string synthesis algorithm** (aka the “digitar”):

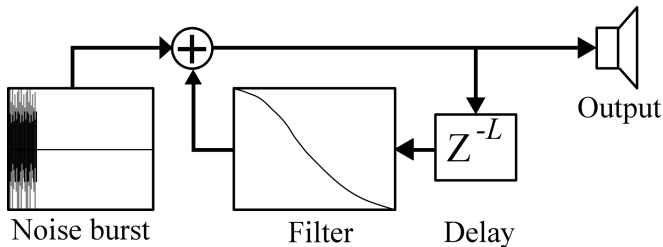


Image credit: By PoroCYon - Own work, CC BY-SA 3.0,

<https://commons.wikimedia.org/w/index.php?curid=44825728>

Today: let's synthesize some music

This activity is *not graded* and not part of the assignments and quizzes. However, your group is welcome to submit the completed worksheet for up to 2 bonus *points* (not percent) that can be banked for future assignments and exams.

Point bank:

- Points can be applied to quizzes, assignments, or exams
- Points cannot be used to increase your score beyond the maximum during the term
- All unused points at the end of the term will go towards your final exam.

Example: you get 16/17 on an assignment, and have 2 points banked. You may apply one of these points to that assignment to improve your score to 17/17, with one point still banked.

For next time

Content:

- modulation and communication systems

Action items:

1. Bonus assignment 5.5 due Sunday 20th at 23:59

Recommended reading:

- For next class: Oppenheim 8.0-8.4