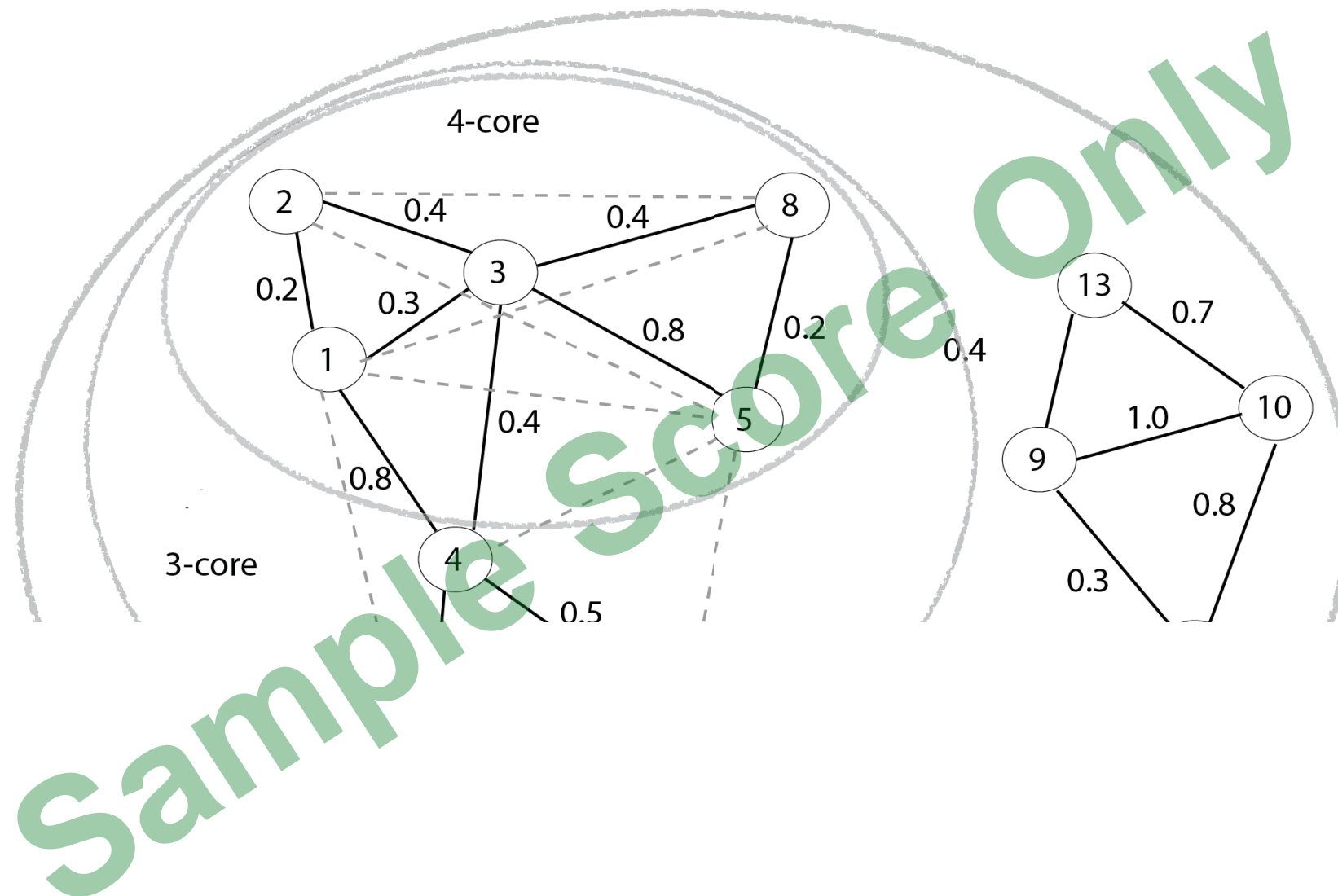


Oboe

Transitional probabilities with k -core precolation (cloud)

An architecture of uncorrelated complex networks with arbitrary degree distributions as a set of successively enclosed substructures.

Graph for oboe fragments



Performance instructions for oboe

Below is a list of musical fragments for the oboe.
The circled numbers above the staves are the numbering system used by the composer, which correspond to the graph on the previous page.

The graph is referred to and labelled throughout the score.

A video was used to capture the data and then sequences of numbers were selected to put together the score (letters are converted into numbers A=1 B=2 C=3 etc.)

<https://vimeo.com/375802709#t=3m05s>

The score contains some variations from what is written here.

Each performer plays independently to the other performers. Tempo changes and time signatures occur at different times for each performer. The performers follow what is written in their part, and do not need try to align with what the other performers are doing.
The total length of the oboe part is approximately 6'33"

In the graph, the decimal numbers that appear on the lines are probability data 0.2 = 20% chance that this transition will occur, 0.3 = 30%, 0.5 = 50% and 1.0 = 100%. The structure of the music moves in “cores” and is based on k-core percolation also known as degeneracy or decomposition in graph theory. The piece starts in 4-core then transitions to 3-core then 4-core, 3-core, 2-core, 3-core then 2-core. Each player is moving between cores at different times, so there is overlap and entanglement between systems.

The number sequence that was used for the oboe part is:

4-core	3-core	4-core	3-core
3 8 5 3 1 3	4 7 4 6 1	3 2 1 2 1 2 1 3	4 6
2-core	3-core	2-core	
13 10 13 9 12 9 12 9 13 9	7 6 7	11 7 11 12 10 13 10 13 12 10 12 11 12	

Microtone chart

- \sharp = one quarter-tone sharp
- \flat = one quarter-tone flat
- $\sharp\sharp$ = three quarter-tones sharp

Score in C

1

$\text{♩} = 60$

p *mf*

2

Growl
A very rough, dirty sound like an uncontrolled flutter-tongue. Blow aggressively against a constricted upper throat.

mp

3

Multiphonics

4 multiphonics are required for this piece. The performer is to select their own multiphonics that they feel is best suited to the musical context it is placed in. But there should be a preference towards heavy dissonance and varying degrees of beating effects.

2 multiphonics have been written here as an example that may help guide the performer's choice. In the score they are labelled as M1 M2 M3 M4.

mp

4

Monophonic

$\text{♩} = 160$

mp *mf* *p*

The Three Ecologies (2020)

Score in C

Part for oboe

4-core

Oboe

3 **Multiphonics**
Multiphonics written here are only a suggestion, the performer may choose their own.

$\text{♩} = 60$

M1 M2

8 **2"**

5 $\text{♩} = 100$
Flutter tongue (irregular)
A stopping and starting of the flutter in an irregular manner.

Repeat the pitch, rhythm and dynamics but continue to vary and change flutter tonguing on repeat

3 **Multiphonics**
(write in your own multiphonic)

$\text{♩} = 60$

M1 M2

1

3 **Multiphonics**

M3 M1

Ab **B** **Bb** **c**

Ob.

4 $\text{♩} = 160$ **Monophonic**

lip bend

7 $\text{♩} = 80$

3 3 3 3 3

" res root, pine nee-- dle, tree bark, seed, tree" seed, tree, seed"

3-core