



Musical Computational Creativity Course Outline

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Topics

Theory

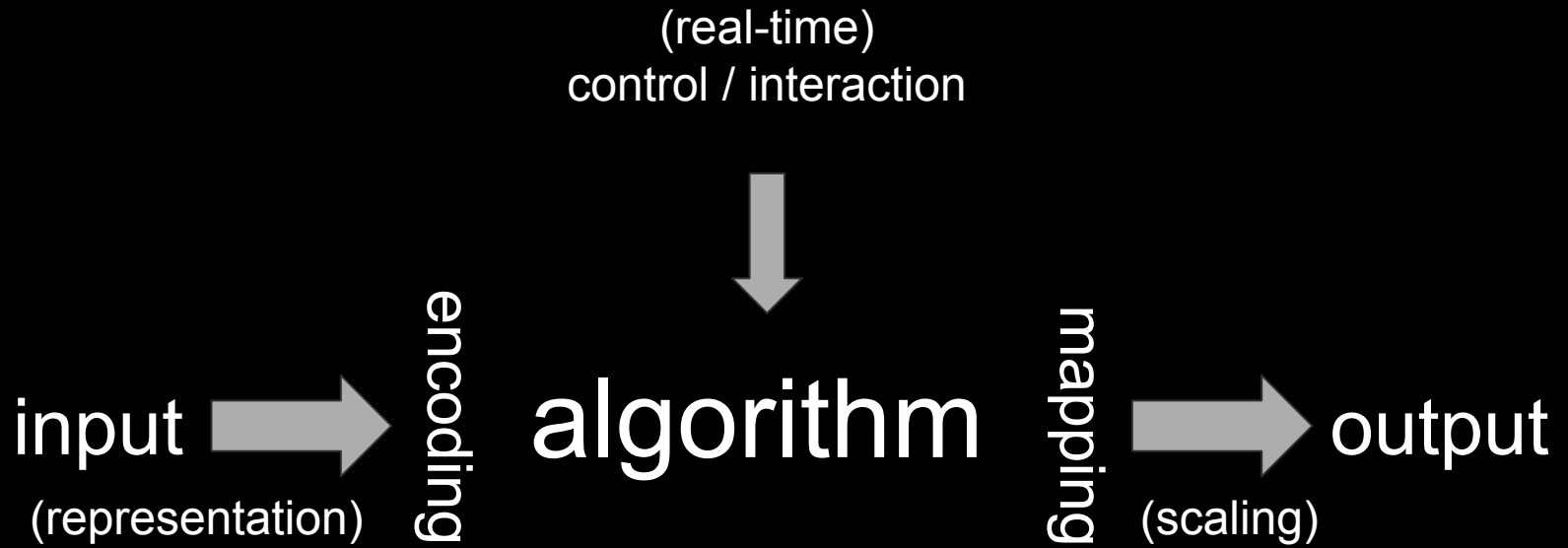
...historical perspectives,
algorithmic thinking,
compositional methods,
synthesis techniques,
digital instrument
design, real-time
interaction, controllers
and NIME's, HCI
evaluation...

Programming in Pd

...language fundamentals,
sound synthesis, symbolic
processing, algorithmic
composition, randomness,
probability, interactive
composing, mapping,
automation, controllers,
embedding, dynamic
patching...

Labs

- Design
 - Synthesis techniques
 - Algorithmic composition systems
 - Real-time interaction
 - Mapping
- Create
 - Style imitation
 - Genuine composition
 - Interactive composing
 - Performance



Planning

Wednesday 17 to 19:30 h.	Topics	Assignments
Week 1 (8 January)	Introduction to the course	Experimenting with Pd
	Algorithmic thinking in music	
Week 2 (15 January)	Pure Data programming language	Probability and noise, automation (composition 1)
Week 3 (22 January)	On Sound Synthesis	Implement a synthesis technique of your choice
	Synthesis techniques in Pd	
Week 4 (29 January)	Algorithmic Music	Style imitation exercise (composition 2)
	Markov Models and Pd	
Week 5 (5 February)	NIME and Controllers	Smartphone digital instrument design (composition 3)
	Smartphones, Pd and other environments	
Week 6 (12 February)	Mapping and expressiveness	Mapping Exercises
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Week 7 (19 February)	Granular, Concatenative and non-standard synthesis methods	Preparation for performance
Week 8 (26 February)	Demos of existing systems (Reactable, Miss...)	Preparation for performance
Week 9 (4 March)	Final performance	Readings on evaluation and evaluation of classmate's performances
Week 10 (11 March)	Evaluation in NIME and HCI	Write final paper
	Performance evaluation	

Evaluation

Task	Percentage	Grouping
Weekly assignments and class participation	50%	individual
Composition exercises	15%	individual
Performance	15%	groups (2-3)
Paper	20%	groups (2-3)