

Adaptasi Positional Encoding pada Arsitektur Transformer untuk Sintesis Notasi Gamelan yang Koheren dan Terkendali

Arif Akbarul Huda

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Decoding PDF files

Ayek-Ayeken **Nem**, laras sléndro pethet nem

Baker

		(6)	5	6	5	6												
	2	1	3	2	6	5	3	(5)										
3	2	3	5	2	3	5	6	5	3	6	5	3	5	6	5	3	5	6
5	6	5	3	5	6	5	3	2	1	2	6	2	1	2	3	(2)		
5	6	5	3	2	1	3	2	6	5	3	(5)							
3	2	3	5	3	2	3	5	2	3	5	3	5	2	3	(5)			
Sarak								6	6	5	6	3	2	1	(6)			

Sarvak

Unicode Code (Hex)	Visual Character	ASCII/Unicode Value (Dec)	Glyph ID (GDI)
U+0020		32	3
U+0029)	41	26
U+002B	+	43	28
U+002D	-	45	30
U+0040	@	64	49
U+0042	B	66	51
U+0043	C	67	52
U+0045	E	69	54
U+0046	F	70	55
U+0048	H	72	57
U+0049	I	73	58
U+004A	J	74	59
U+004C	L	76	61
U+004D	M	77	62
U+004F	O	79	64
U+0050	P	80	65
U+0051	Q	81	66
U+005B	[91	76
U+005D]	93	78
U+005E	^	94	79

Notasi gamelan Ayak-ayakan Nem Slendro
pt. Nem

Cmap font balungan.

##Page 0##

Ayak-Ayakan Nem, laras sléndro pathet nem

Buka

$$M @ - + L) - + M) ^ - + L) - + M) ^$$
$$- + P) \quad - + 0)^{\wedge} \quad - + Q) \quad - + P)^{\wedge} \quad M + L) \quad J + L@$$
$$[(+J + I) + J + L)^{\wedge} + I + J) + L + M)^{\wedge} + L + J) + L + M)^{\wedge} + J + L) + J + I@$$

L M) L J)^ L M) L J)^ I H) I F)^ I H) I J@

L M) L J)^ I H) J I)^ F E) C E@

C B) C E)^ C B) C E)^ I J) L J)^ L I) J L@]

Suwuk

F F) E F)^ J I) H F@

Figure: Notasi ayakan decoded

Previous Work

Plotting Structure

Sepeng: **Tlatur**, laras slendro pathet sanga

Buka kumuhang

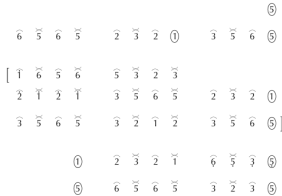


Figure: Notasi Gamelan

Javanese Gamelan Structure

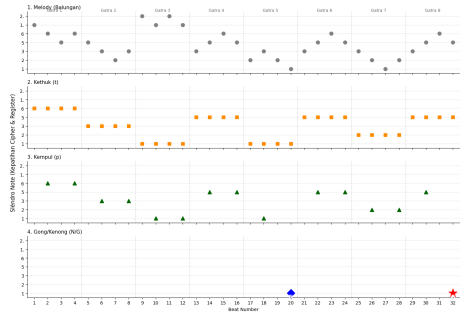


Figure: Plot Struktur

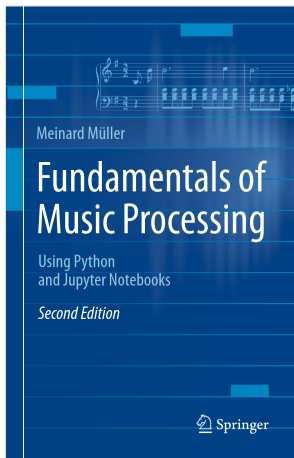


Figure: Buku Referensi

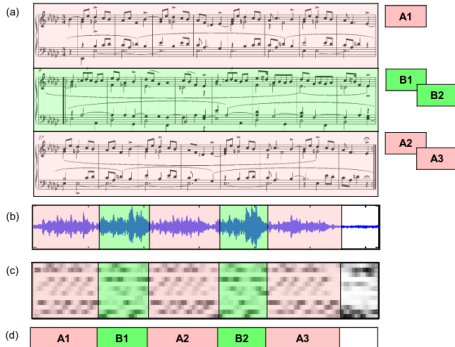


Figure: 4.1. From the book

The General Goal of Music Structural Analysis

- Temporal Segmentation
- Structural Identification
- Categorical Grouping

The methods

- Repetition-based
- Novelty-based
- Homogeneity-based

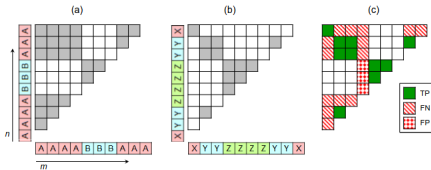


Figure: 4.30. From the book

Evaluation

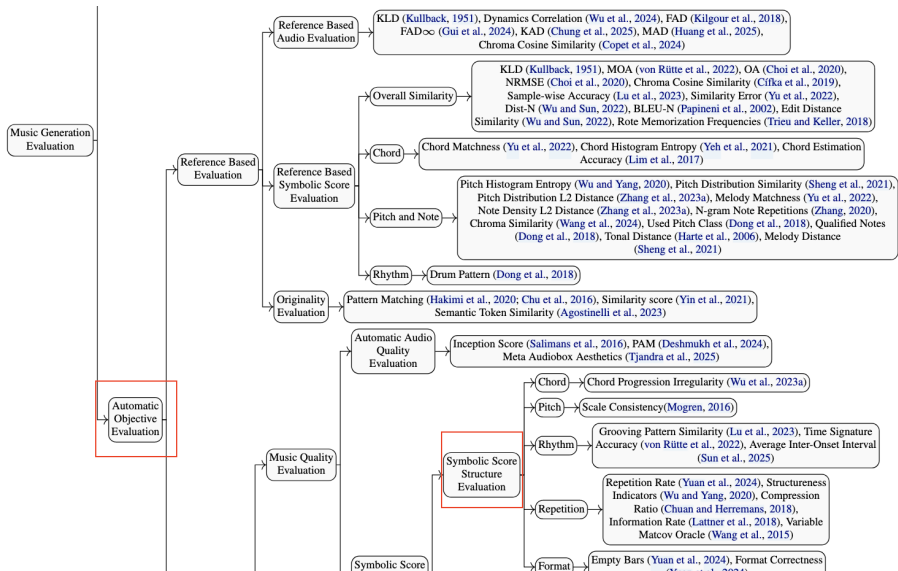
- Precision, Recall, F-Measure
- Structure Annotations
- Labeling Eval.
- Boundary Eval.
- Thumbnail Eval.

Subjective evaluation are

- Unscalable
- Inability to Guide Improvement
- Missing the "Why"

de Berardinis, J., Cangelosi, A. and Coutinho, E. (2022) "Measuring the Structural Complexity of Music: From Structural Segmentations to the Automatic Evaluation of Models for Music Generation," IEEE/ACM Transactions on Audio, Speech, and Language Processing, 30, pp. 1963–1976. Available at: <https://doi.org/10.1109/TASLP.2022.3178203>.

Kader FB, Karmaker S. A Survey on Evaluation Metrics for Music Generation [Internet]. arXiv; 2025 [cited 2025 Nov 19]. Available from: <http://arxiv.org/abs/2509.00051>



- Experimental evaluasi struktur pada dataset
- Experimental evaluasi struktur pada previous paper