

Denis Smalley's Acousmatic Soundscapes

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LISTENING CITIES - SALFORD SONIC FUSION FESTIVAL

INTRO

INTRO

Relationship

between

real world



musical world

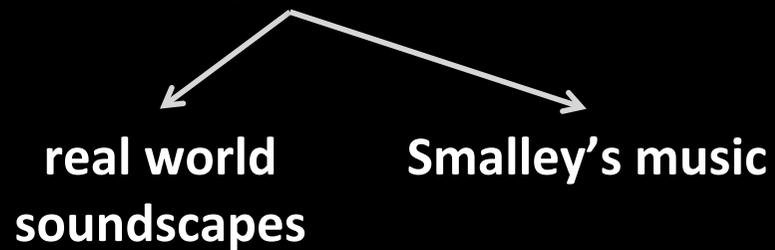
in

Denis Smalley's
acousmatic esthetic

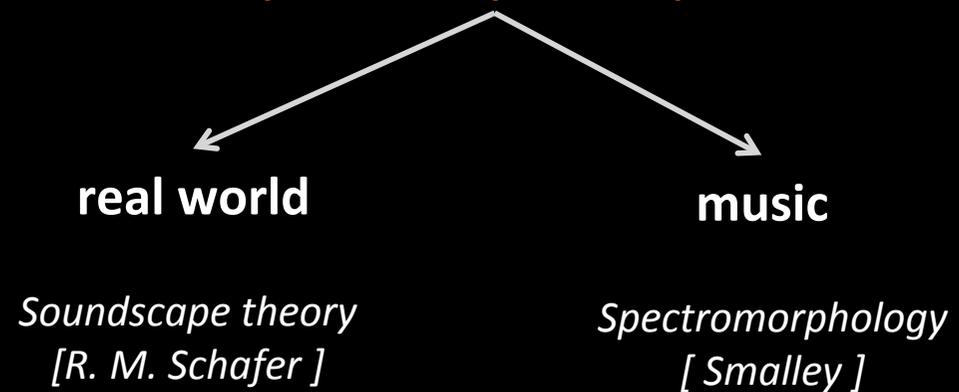
INTRO

STARTING POINT

Listening experience



Study of analytical systems



INTRO

ANALYTICAL TOOLS

Soundscape Theory
concepts

Spectromorphology
terminology

highlight Smalley's
musical narrative strategies

related to
real world

THEORETICAL BASIS

SOUNDSCAPE THEORY

R.M.Schafer, *"The new soundscape"*, 1968

Highlight's the **importance / function / position** of a sound in a soundscape

keynote

Background sound (continuously heard)

signal

Foreground sound (attention attractor)

soundmark

Unique community sound/specially regarded

masking

s. obstructing the perception of other sounds

spectral niches

empty segments of spectral space

THEORETICAL BASIS

SOUNDSCAPE THEORY

R.M.Schafer, *"The new soundscape"*, 1968

Highlight's the **importance / function / position** of a sound in a soundscape

hi-fi

S. in which sounds are **heard distinctly** (no masking / crowding effect)

Signal/noise ratio

+

-

lo-fi

S. in which sounds are **overcrowded** (masking effect, loss of clarity)

schizophonia

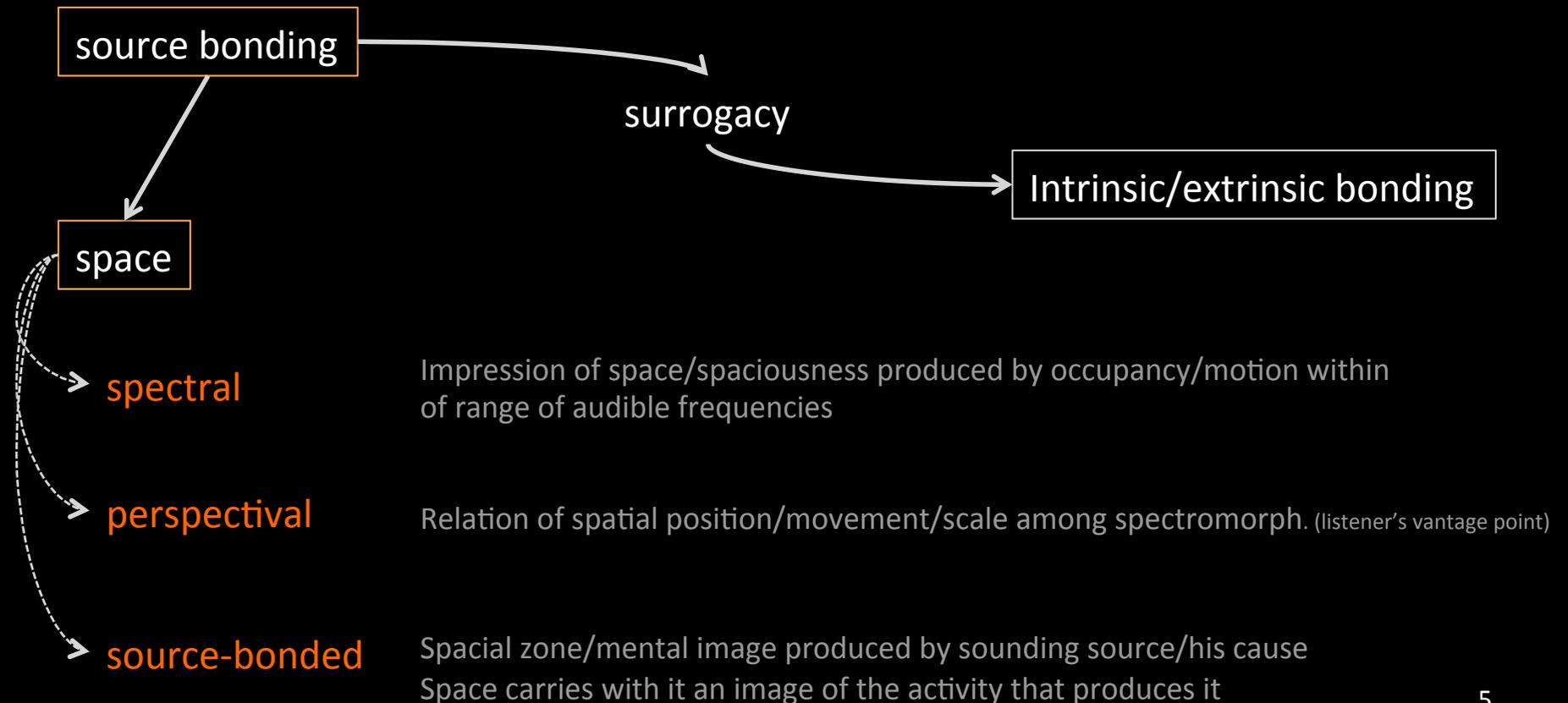
Abberation effect due to the **spread** between sound and his source (technology)

THEORETICAL BASIS

SPECTROMOPRHOLGY

D.Smalley, *"Spectromorphology and structuring processes"* 1986

Highlight's the **net of relationships/significance** of sounds inside / outside the musical discourse



EXAMPLES

Empty Vessels (1997)

(1994)

Névé

mimesis

abstraction



Transcontextual

on multiple levels
of musical discourse

title

form

synthax

materials

EXAMPLES

Empty Vessels (1997)

(1994)

Névé

mimesis

abstraction



Transcontextual

on multiple levels
of musical discourse

title

form

synthax

materials

abstracted

Syntax

abstract

mimetic

Discourse

aural

S.Emmerson

EXAMPLES – Empty Vessels

The Empty vessels of the title are some **large garden pots** from Crete and an olive jar from Turkey. Recordings of the **air resonating** in these vessels provided the starting-point for the piece.

Since these recordings were done **in a garden** (my garden in North London), sounds from the environment were also captured by the **microphones inside the pots**, and changes in the timbre of these sounds resulted from interaction with the **filtering effect** of the resonant vessels.

These "natural" transformations were **extended** through computer treatments of the sources, and they also suggested relations with very different types of resonant sounds.

The garden palette was expanded by recordings made in the **same environment** without the benefit of the **vessels' transformations**.

The resulting work may be regarded as a **journey** which passes through the highly charged and more restful events, textures and spaces inspired by the Empty Vessels.

(DS)

EXAMPLES – Empty Vessels

MATERIALS

Referential index

birds

insects

rain

piano cluster

airplane

crackles

vantage point

very relevant in sound recording / space definition

EXAMPLES – Empty Vessels

MATERIALS

Referential index

birds

signal

insects

signal

rain

keynote

piano cluster

soundmarker

airplane

soundmarker

crackles

EXAMPLES – Empty Vessels

MATERIALS

Referential index

birds sig
insects sig **A**
rain keyn

piano cluster sndm **B**

airplane sndm **C**

crackles

STRUCTURAL CONTEXTS

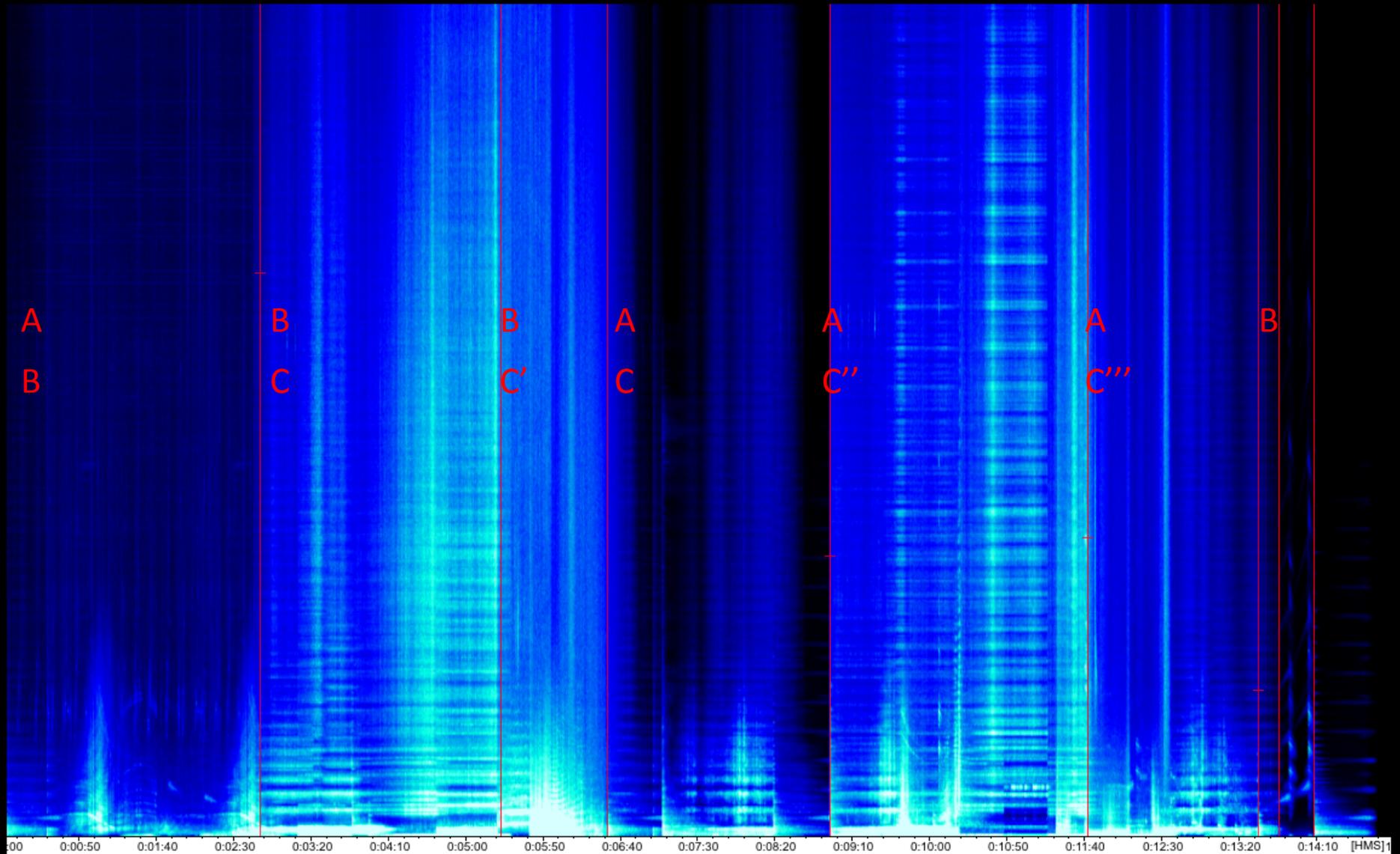
EXAMPLES – Empty Vessels

STRUCTURE

Contexts

	A <i>natural soundscape</i>	B <i>abstract soundscape</i>	C <i>transition</i>
	Birds, insects, rain	piano cluster	airplane
function	defines the external mood	defines the internal mood	tension vector / mask
	hi-fi	hi-fi / lo-fi	lo-fi
Perspectival space	distal / behavioural / nested	Proximate / microphonic / immersive	Elevated / immesive
Spectral space	transparent / spectral niches (hi – mid)	(mid)	Packed / compressed (mid - low)
Transform.	natural / artificial < filtering, resonator >		artificial < flanger >
	<i>extend natual image</i> Vessels = natural resonator		<i>Exasperate natural image</i> + noise

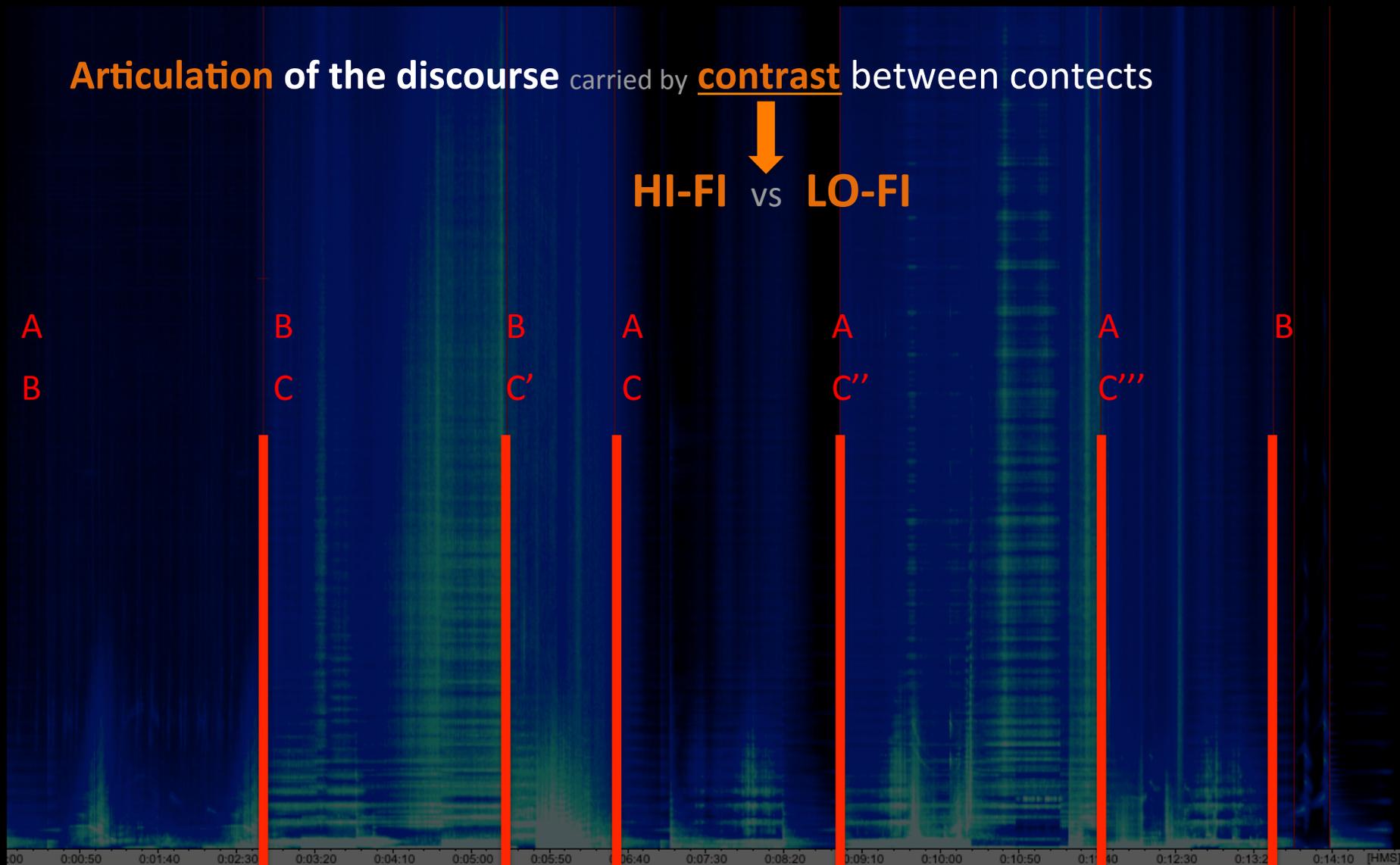
EXAMPLES – Empty Vessels



EXAMPLES – Empty Vessels

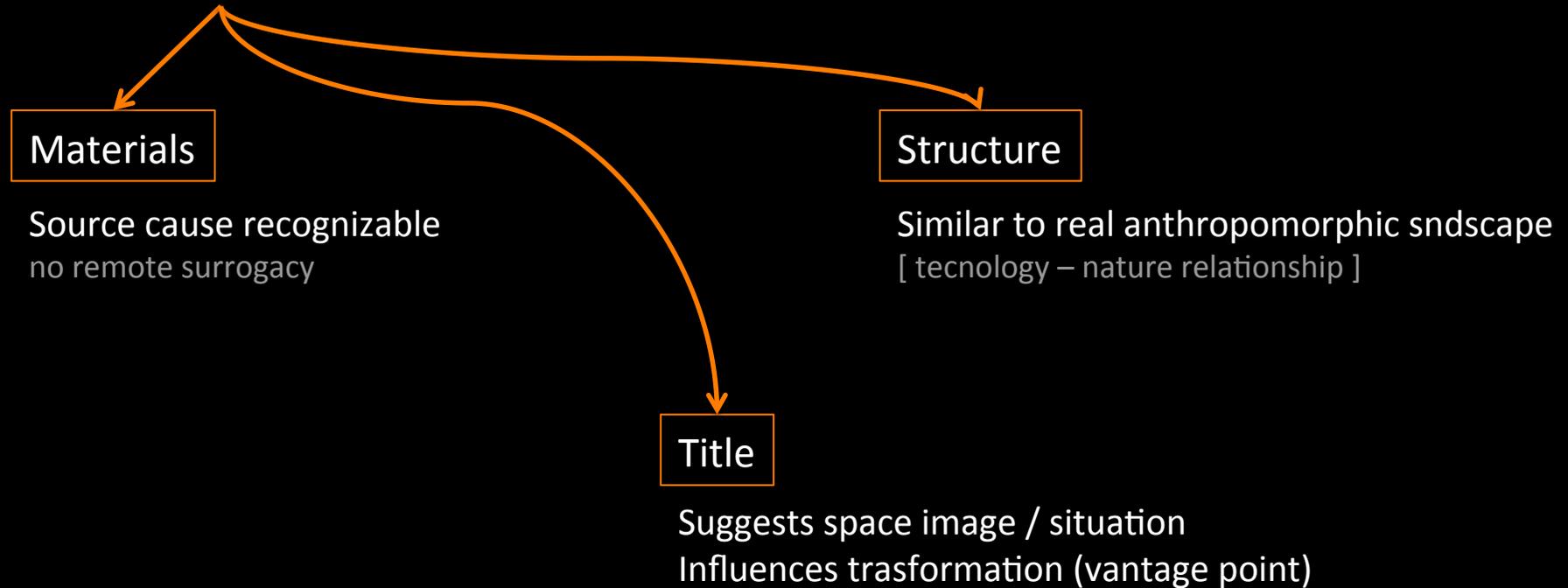
Articulation of the discourse carried by contrast between contexts

HI-FI vs LO-FI



EXAMPLES – Empty Vessels

MIMETIC DISCOURSE



EXAMPLES – Névé

Névé was inspired by a walk on the Fox Glacier in New Zealand, and takes **structures** and **imagery** related to **glaciers** as its starting-point. However, the sound materials also suggest their own developments, relations and diversions. The work is a continuation of *Valley Flow*, composed in 1992, which was also influenced by environmental images and materials.

The **Névé** is the mass of hardened snow which feeds the source of a glacier and whose compaction initiates glacial flow. The surface expanses of smooth material conceal organic processes and pressures beneath.

A **corrie** (from the Gaelic "coire" - a cauldron) is an armchair-shaped hollow with steep sides and back wall, formed as a result of glacial erosion on a high mountainside. This form is often reminiscent of a mortar in which one grinds spices and grains, and its sounds derived from recording the frictional motions of a large, Indian mortar and pestle which provide the basis for the movement. Since the névé material is also featured, an analogy linking the domestic and the environmental is suggested.

A **sandar** (from Icelandic) is an open, coastal plain of sand and gravel with streams of melt water flowing across it, stretching out from the mouth of a glacier. To begin with this movement concentrates on fragmented, pressurised debris and outwash activity, but soon spreads into larger harmonic vistas. (DS)

EXAMPLES – Névé

MIMESIS

Form

→ 3 parts structure [natural model of glacier]

Materials

→ Sound Identities recall physical proprieties of the natural models

Névé

4'47''

low texture, undulation
stasis , crackle

Corrie

6'10''

Woody iterative texture
dragging

Sandar

6'20''

Crackle, water, metal

EXAMPLES – Névé

MATERIALS

Material index

noise (nodes)

ice

sand

water

wood

EXAMPLES – Névé

MATERIALS

Material index

noise (nodes)

Behaviour

ice

crackling

sand

water

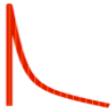
undulation

wood

dragging / bouncing

EXAMPLES – Névé

MATERIALS: gestures (impulsive)

Gesti	nome	1°comparsa	archetipo spettromorfologico	conenuto spettrale	indice materico	traiettoria freq
	G1	Corrie	attack-decay	nodale (1000-1100hz) (175-450 hz)	legno	statico
	G2	Corrie	attacco impulsivo reiterazione rapida impulsi (rimbalzi serrati) decadimento rapido	rumore - nodale	legno	discendente
	G3	Neve 1'56"	attacco rapido reiterazione lenta gesti decadimento lento	rumore - nodale 480 - 560Hz (Do3) (75-300Hz)	(voce con pitch shift)	statico discendente
	G4	Neve 2'13"	attacco impulsivo reiterazione ciclica irregolare impulsi (rimbalzi) decadimento lento	rumore 480 - 560 Hz	strumento a fiato	statico
	G5					
	G6	Sandar	attacco+decay con risonanza	nodale inarmonico acuto (polarizzazione su Re-La)	metallo	statica (varie altezze)

soundmark
signal

signal

EXAMPLES – Névé

MATERIALS: gestures

Gesti	nome	1°comparsa	archetipo spettromorfologico	conenuto spettrale	indice materico	traiettoria freq
	G7	Neve	attacco rilascio graduale con diradamento	rumore (medio-acuto) grana	sabbia / sassolini	
	G8	Neve	attacco rapido continuant iterativo rilascio rapido	rumore (acuto) grana fine, sfregata (schiccholio)	ghiaccio	stabile
	G9	Corrie	attacco rapido continuant iterativo rilascio rapido	rumore (medio-acuto) grana fine, riverberata	sabbia/sassolini	stabile
	G10	Corrie 0"	a delta attacco rapido reiterazione ciclica regolare (x2) (rimbalzi)	rumore (grave)	?	statica
	G11	Corrie				
	G12					

signal

soundmark

soundmark

EXAMPLES – Névé

MATERIALS: textures

Tessiture	nome	1°comparsa	archetipo spm.	conenuto spettrale	indice materico	traiettoria freq
	T1	Neve		rumore nodale polarizzazione su Do2	?	stabile
	T2	Neve				
	T3					
	T4					
	T5					
	T6					

Keynote 1

Keynote 3

EXAMPLES – Névé

MATERIALS: gesture framing

Gesti Tess.	nome	prima apparizione	archetipo spm.	conenuto spettrale	indice materico
	GT1	Neve 0'02"	onda	rumore (medio grave)	respiro ?
	GT2	Neve	attacco dolce rilascio lento	rumore (medio grave)	?
	GT3	Sanadar			

EXAMPLES – Névé

MATERIALS: texture setting

Tess. Gestuali	nome	prima apparizione	archetipo spm.	conenuto spettrale	indice materico
	TG1	Corrie			
	TG2	Neve	ad arco attacco lento gesti interni reiterati aperiodici con attacco graduale (rimbalzi diradati) rilascio lento	nodale	
	TG3				

Keynote 2

signal

EXAMPLES – Névé

Contexts



function	Keynote + soundmark	signal	soundmark
	hi-fi	hi-fi / lo-fi	hi-fi
Perspectival space	distal / behavioural / nested	Proximate / microphonic / frontal	nested
Spectral space	Open / opaque / static (polarization on C ₂)	close	Inharmonic (metallic)
Transform.	dilatation of gesture/textures in time	(remote) surrogates of gestures	static

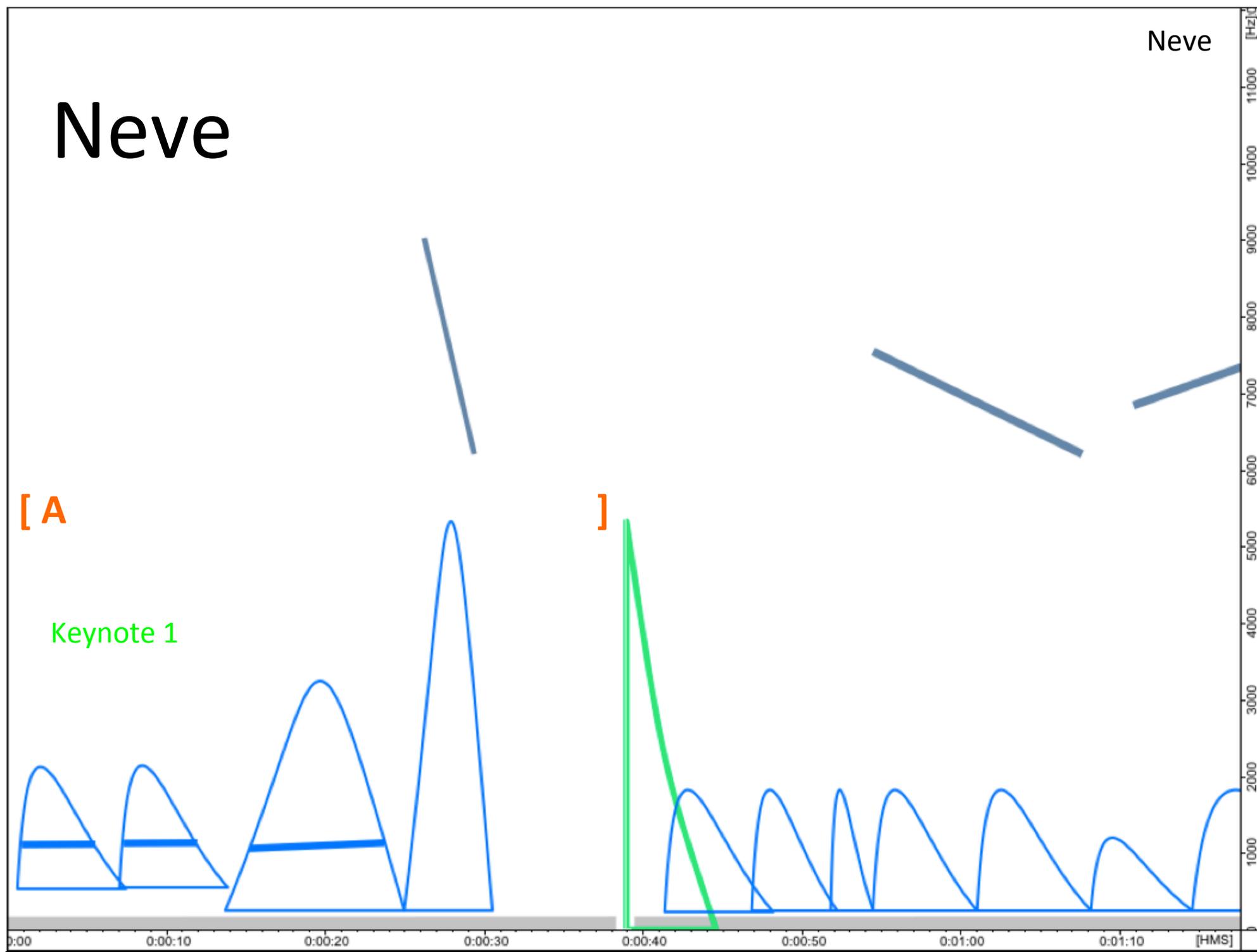
Neve

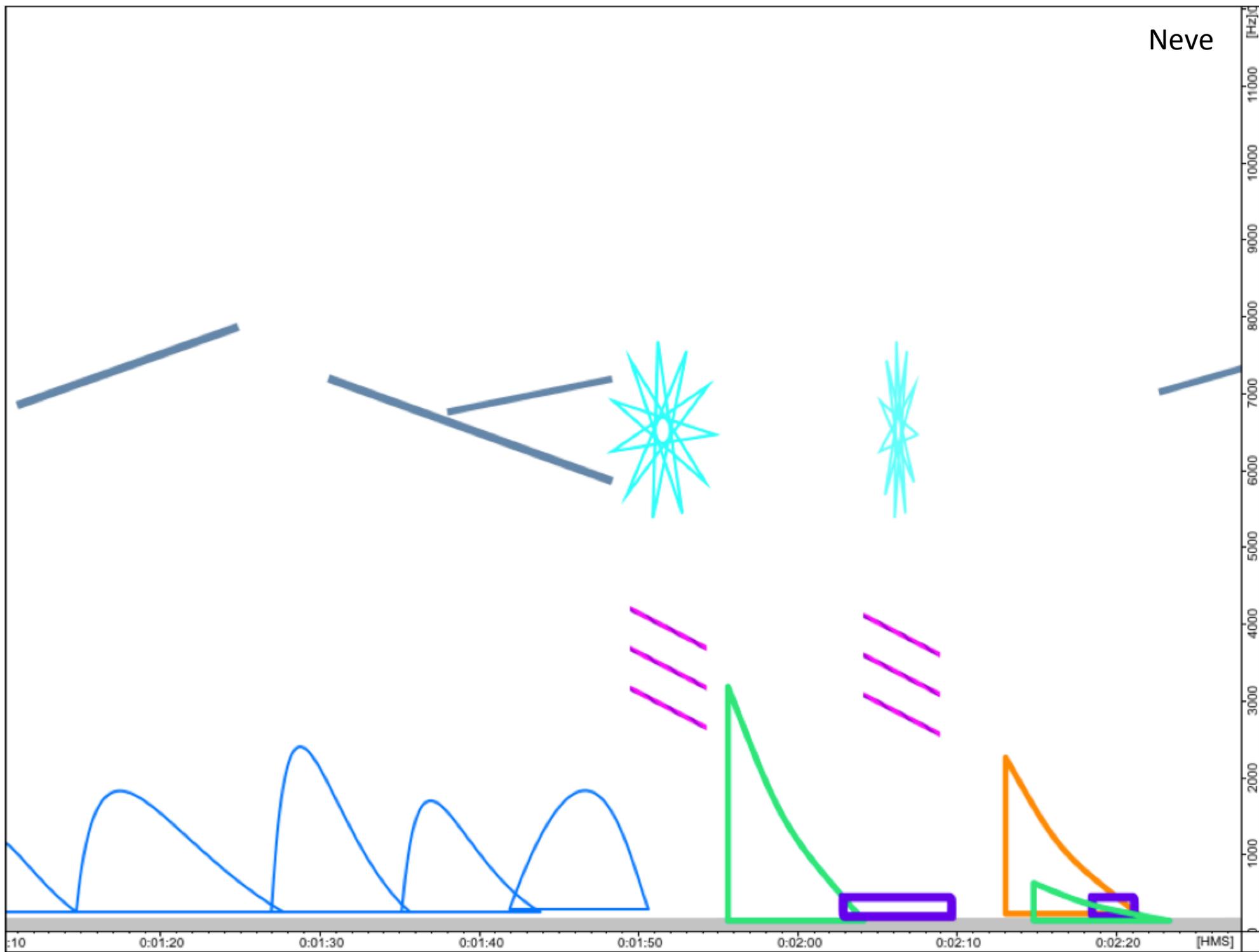
Neve

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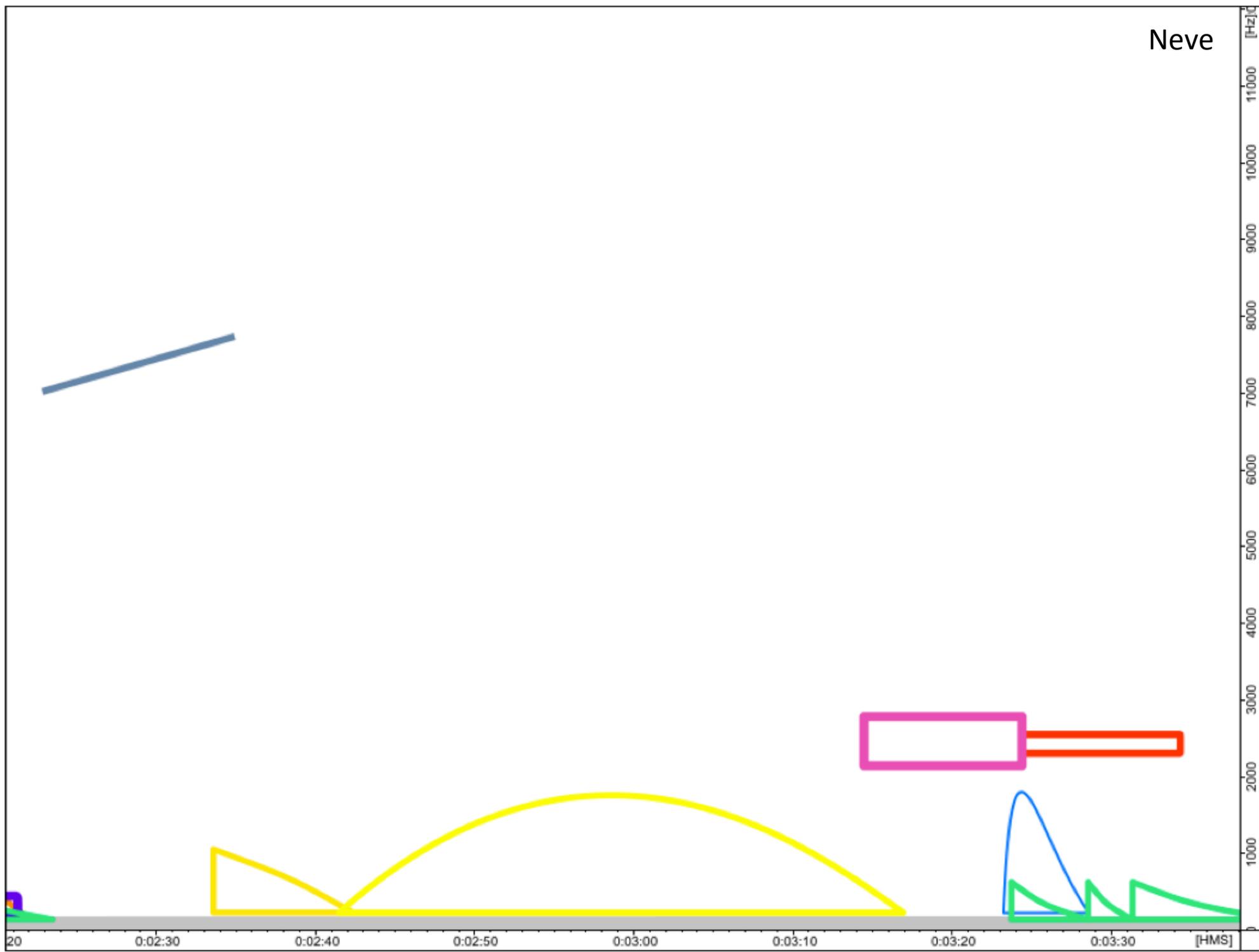
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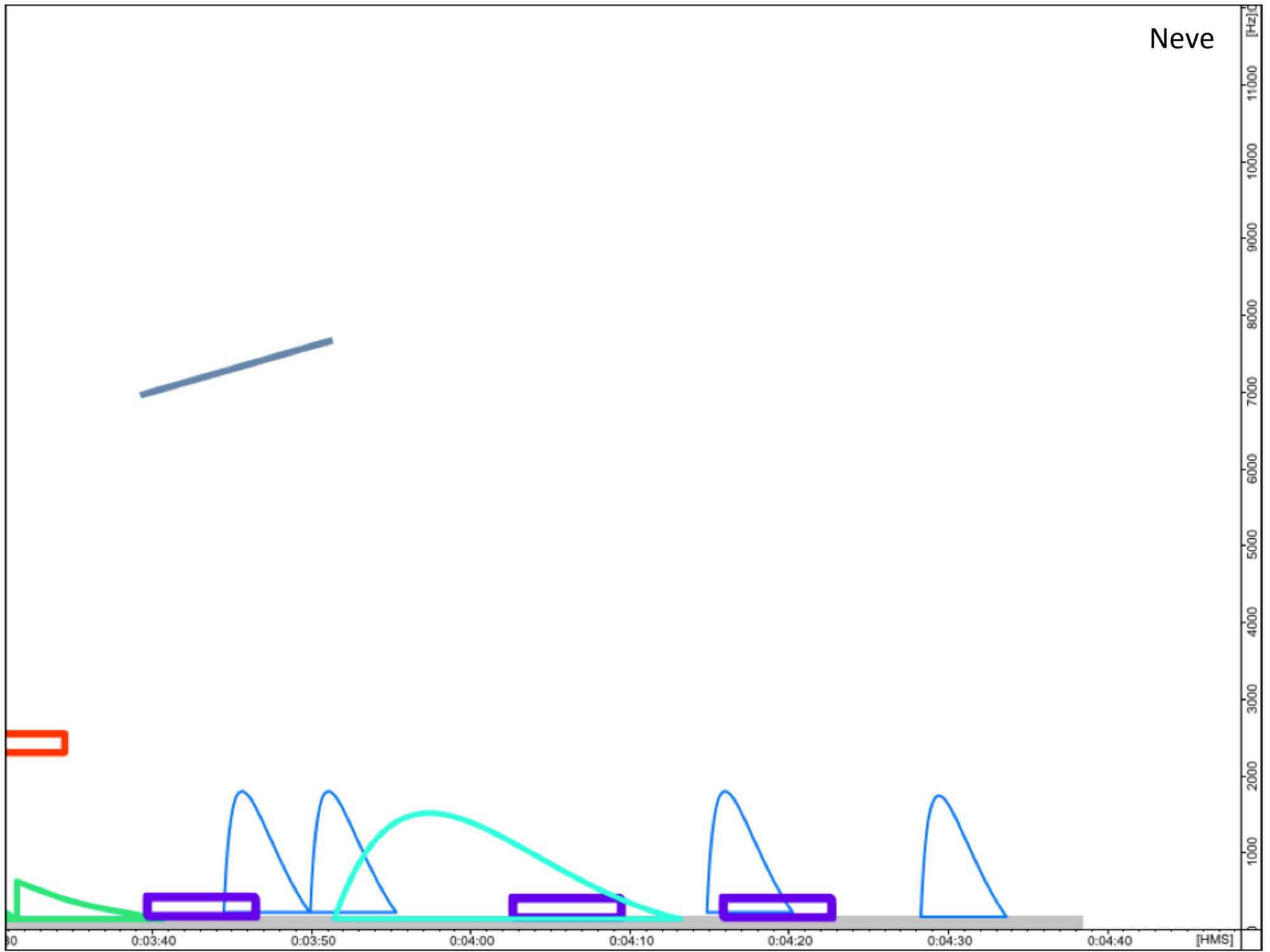
Keynote 1





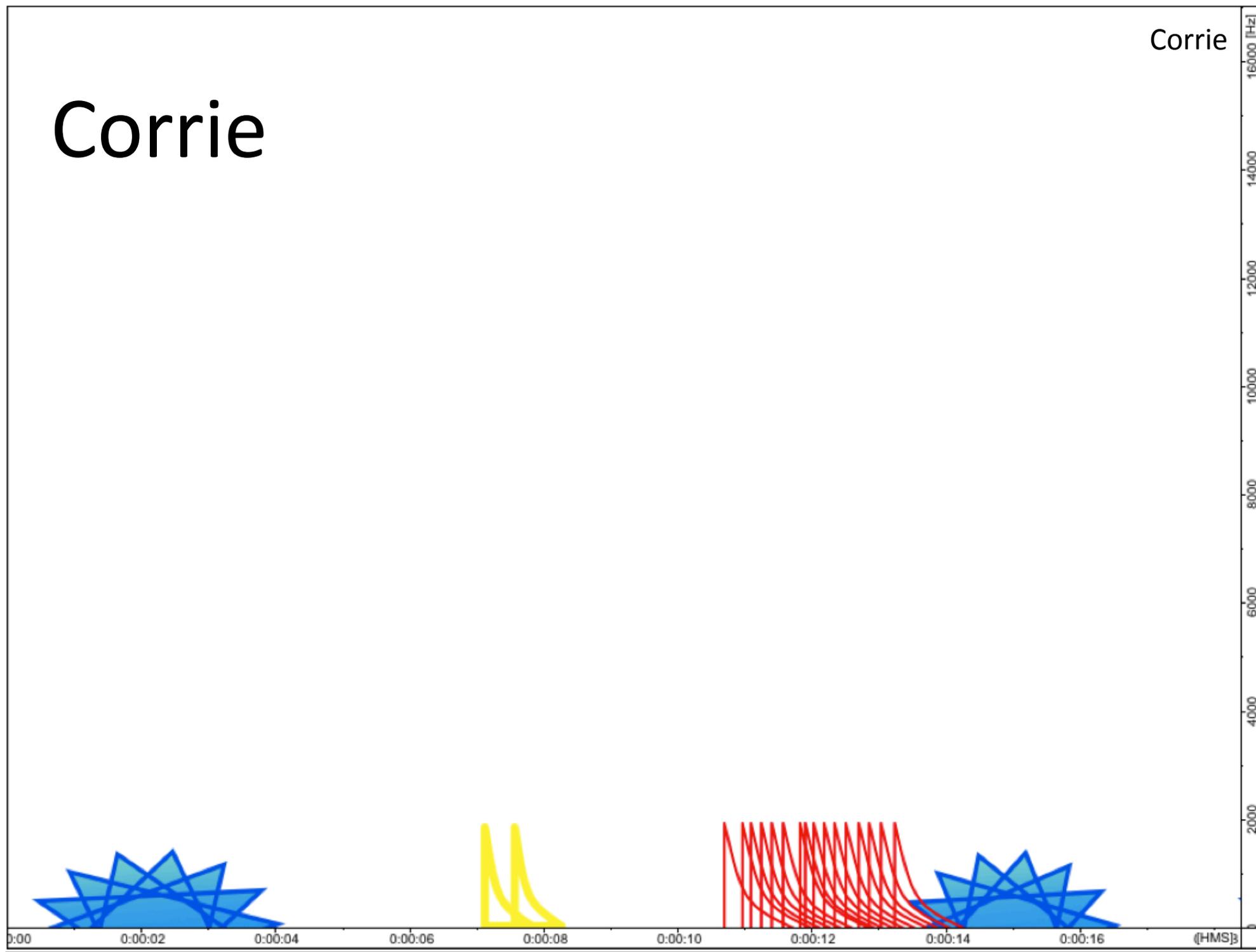
Neve



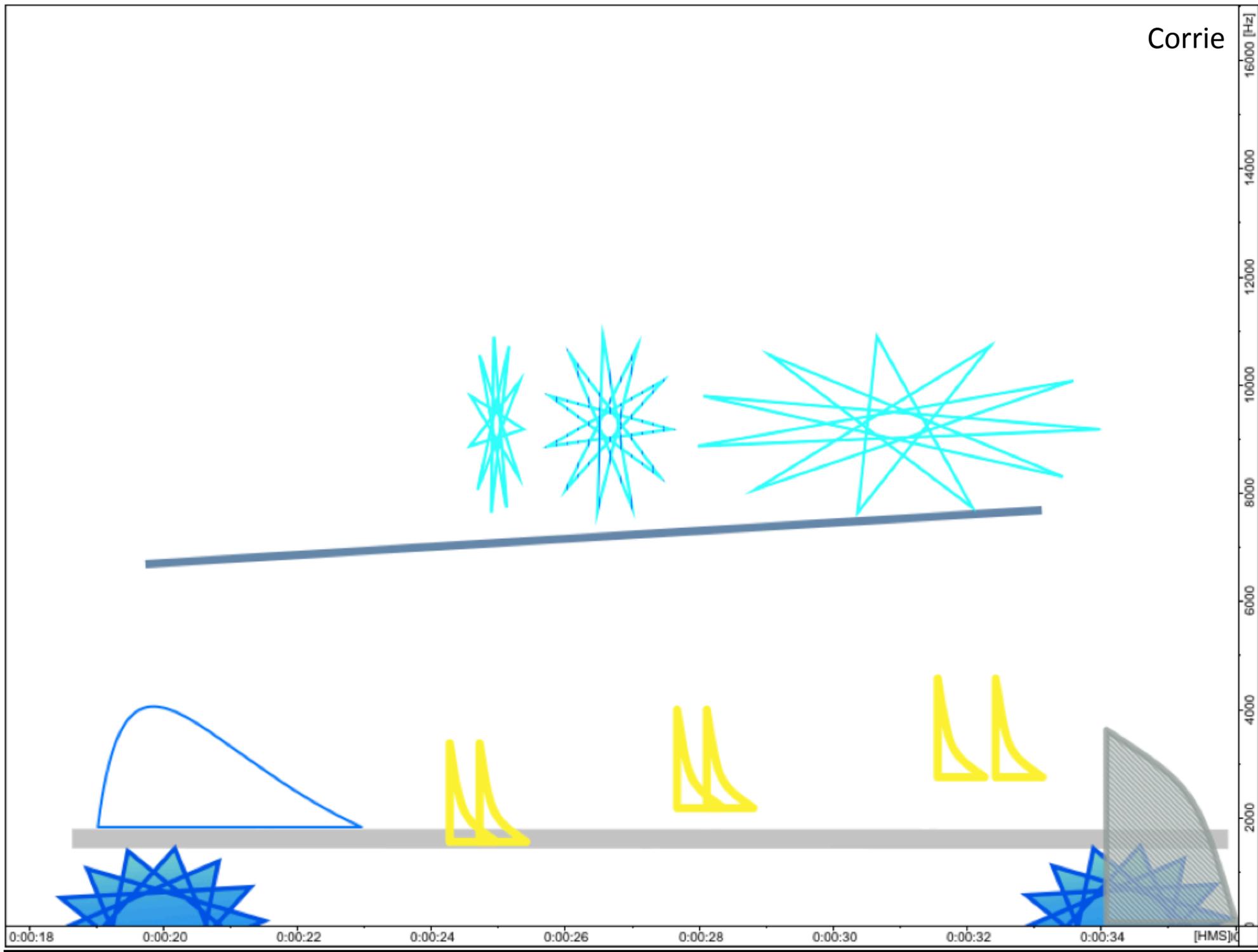


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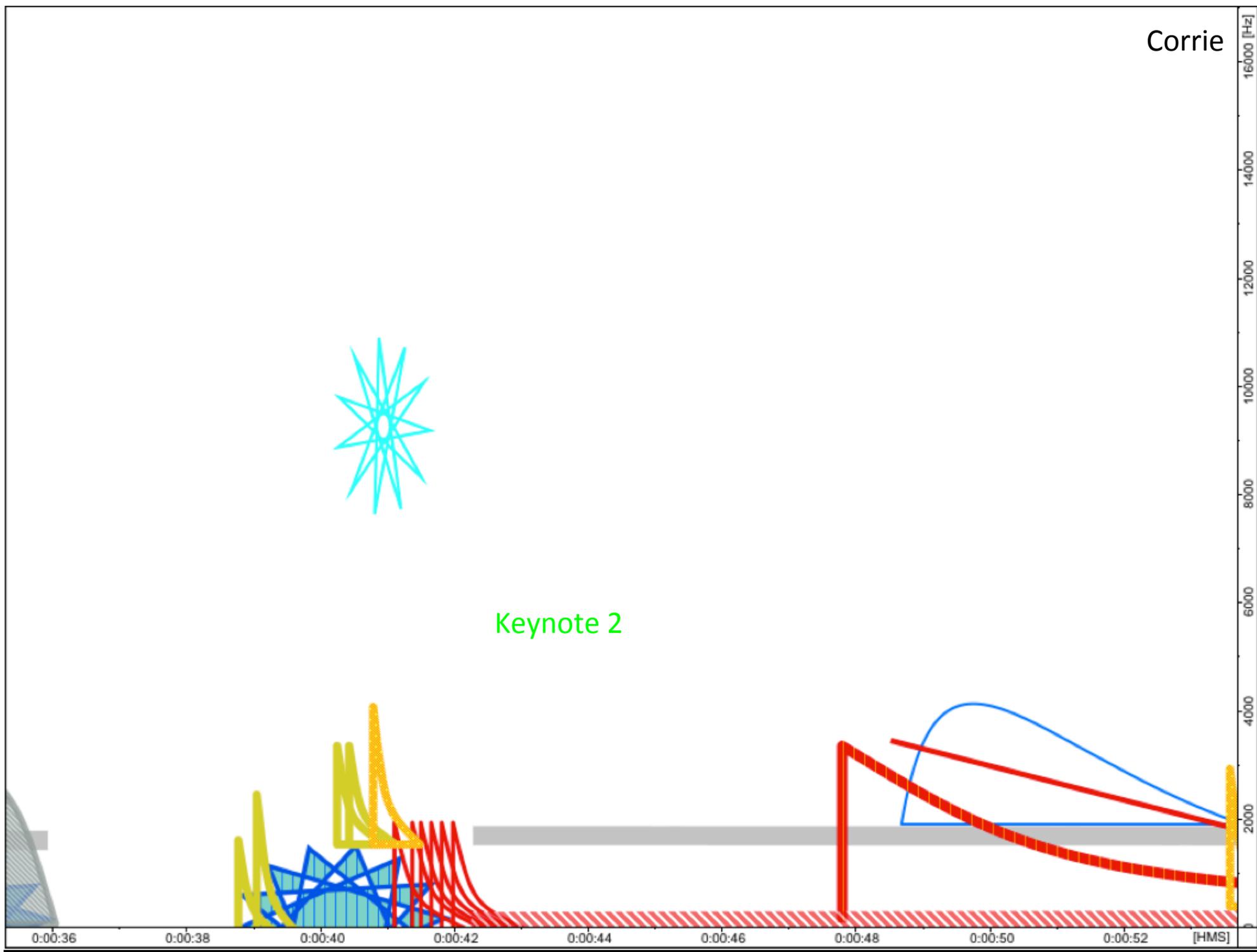
Corrie



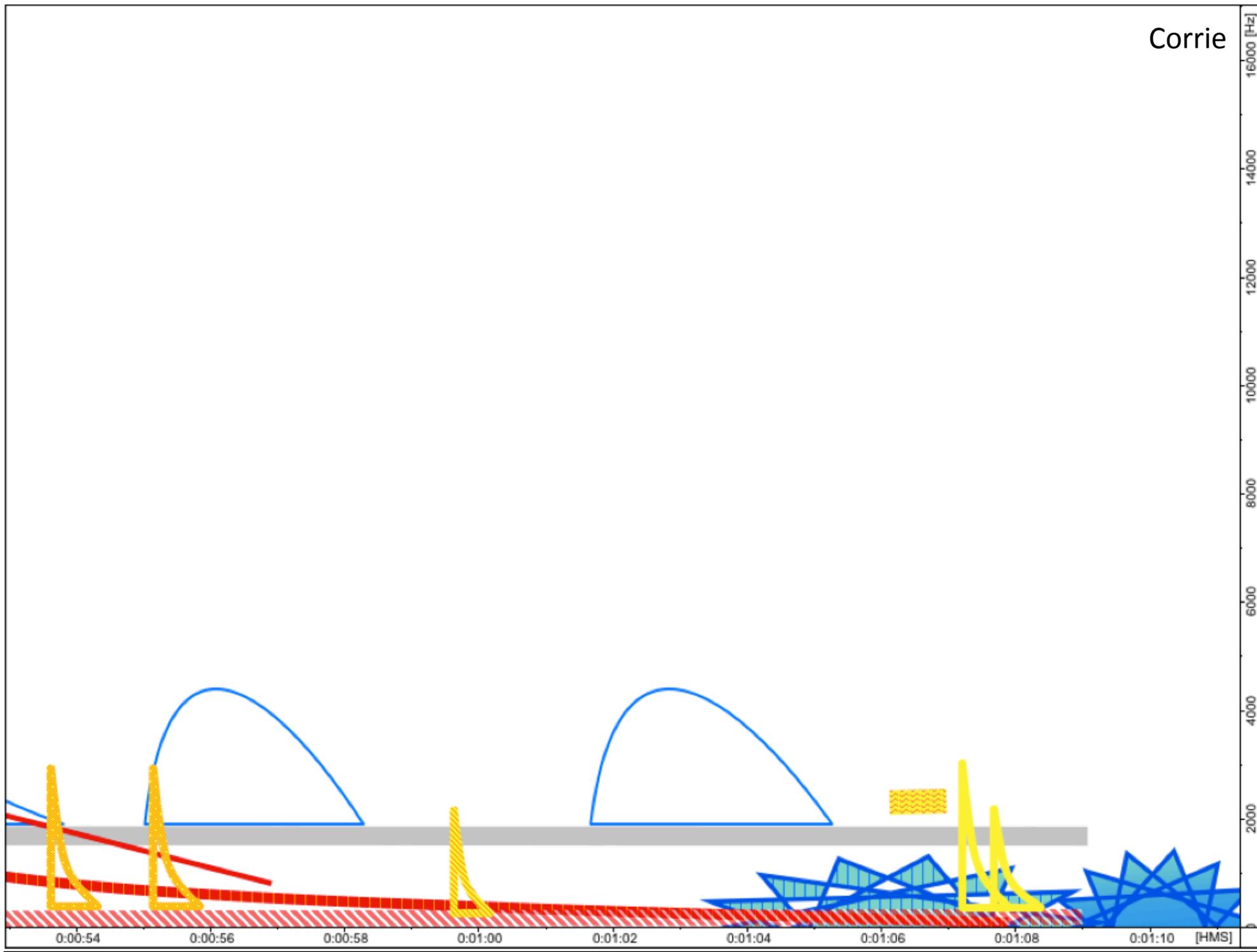
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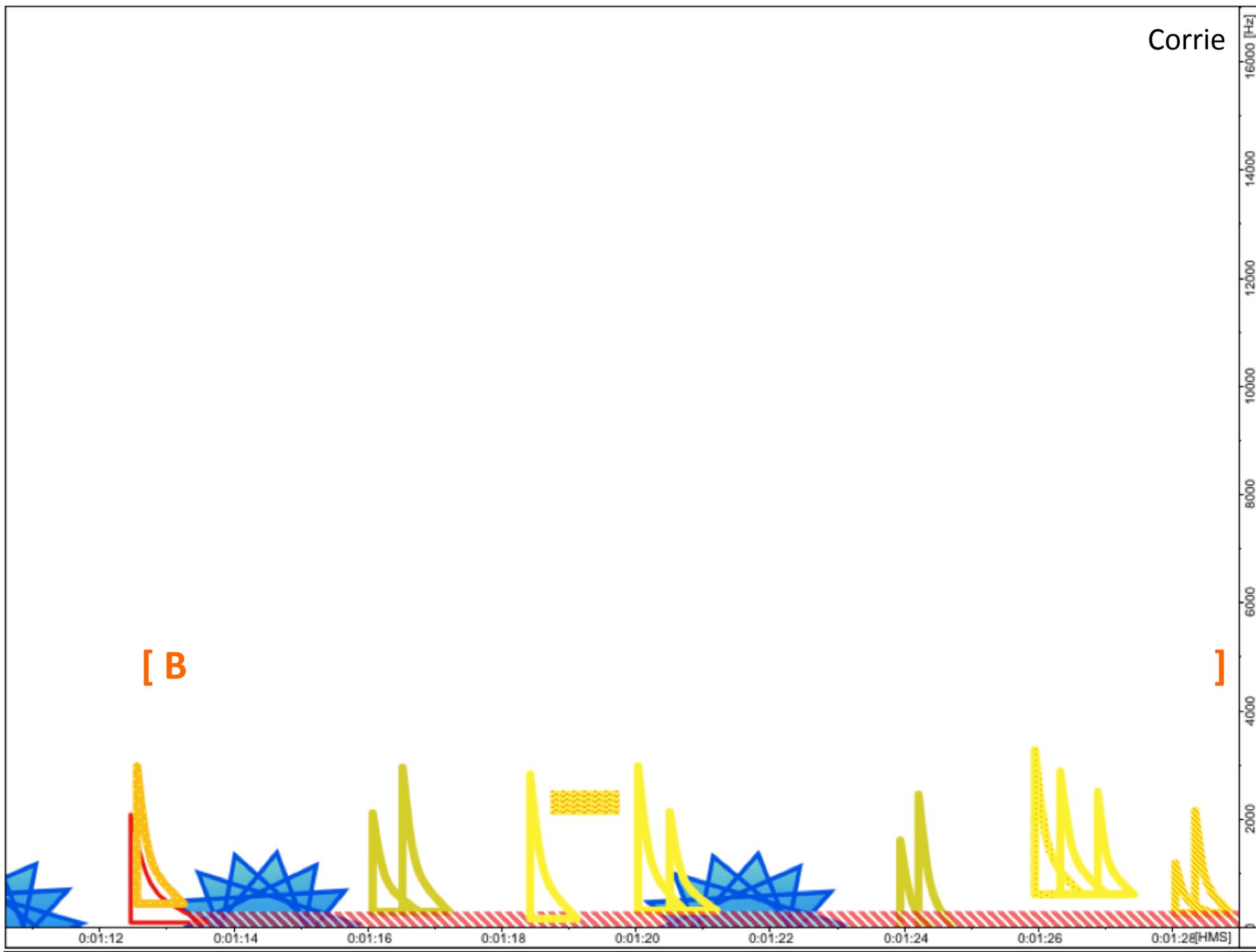
Corrie



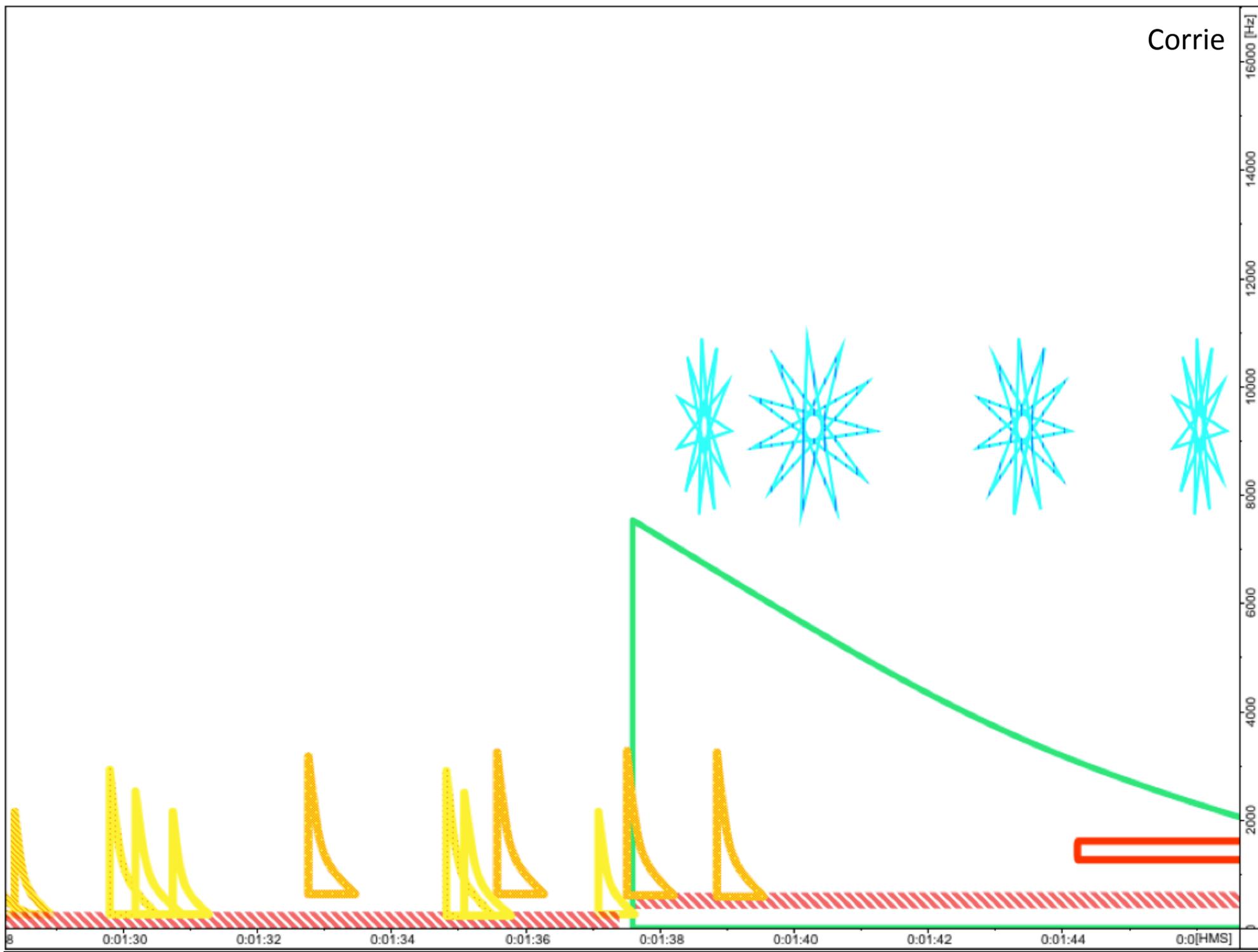
Corrie



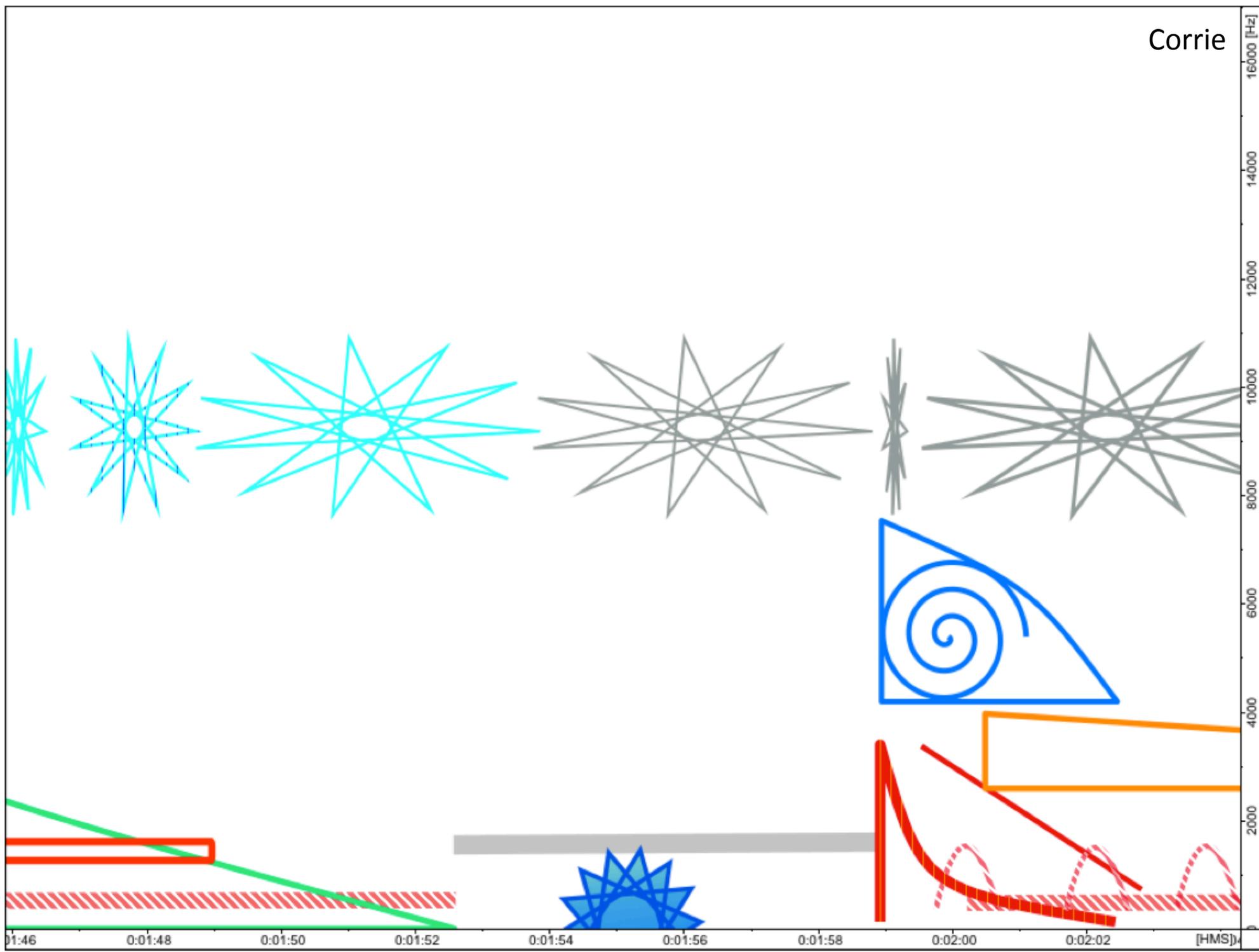
Corrie



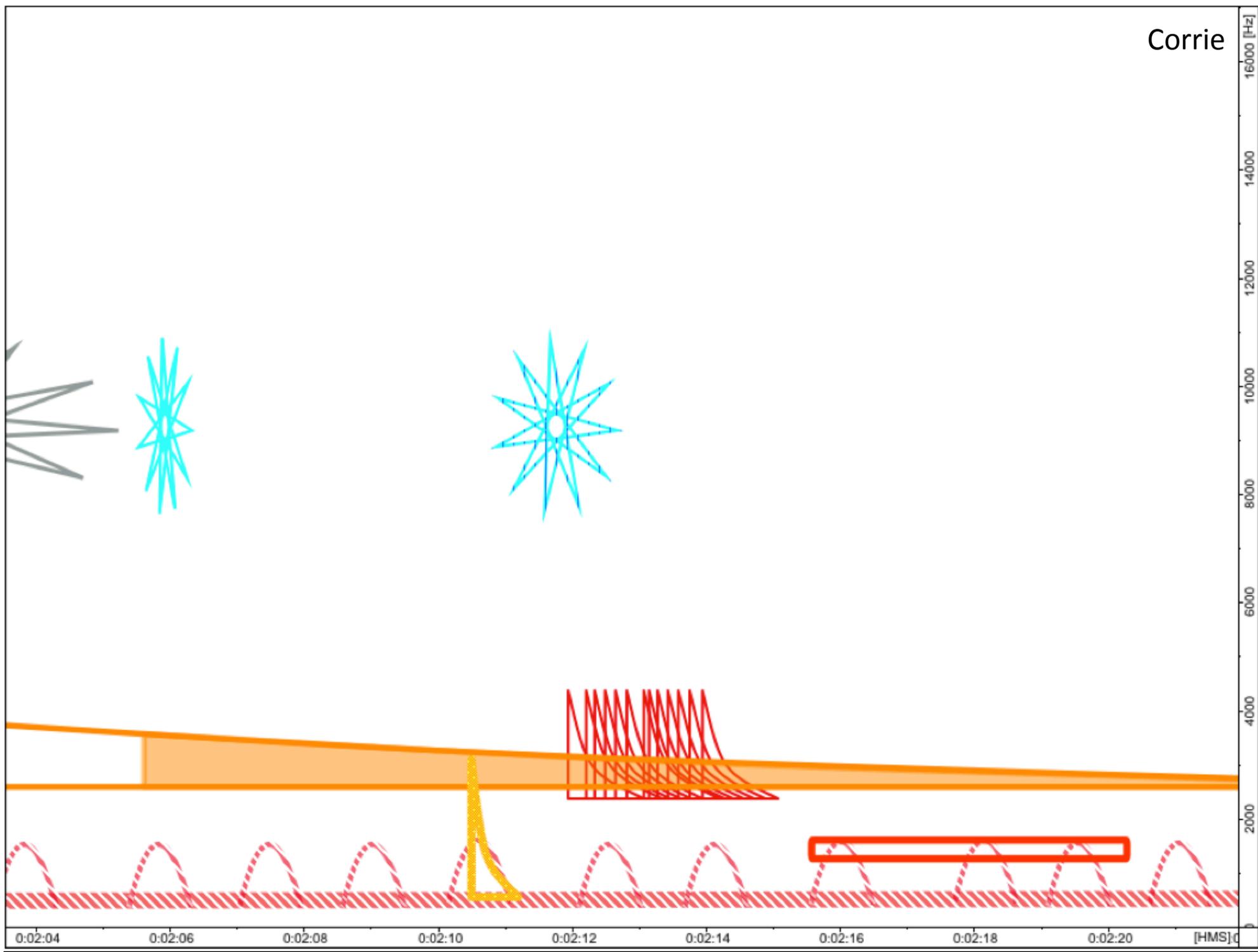
Corrie



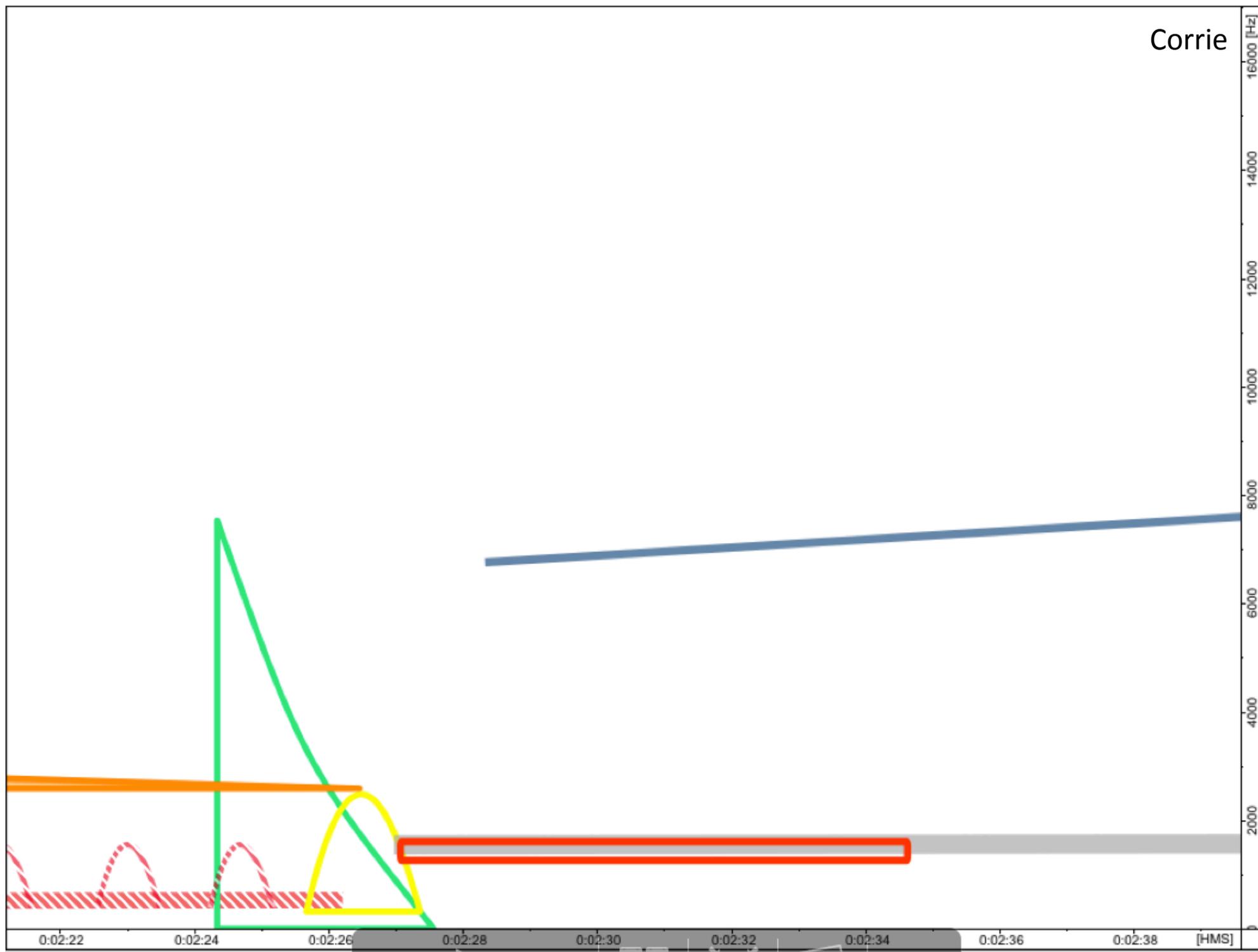
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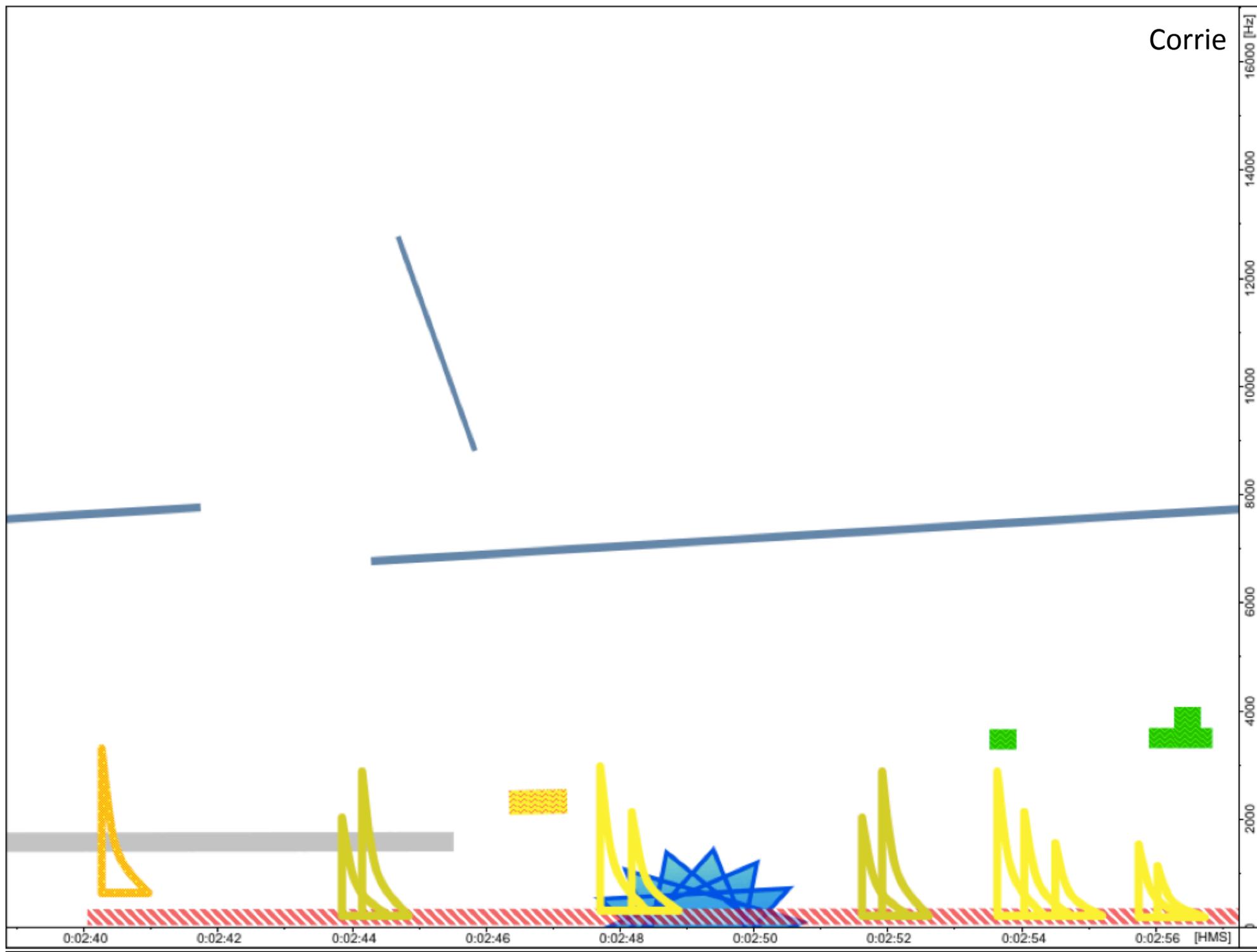
Corrie



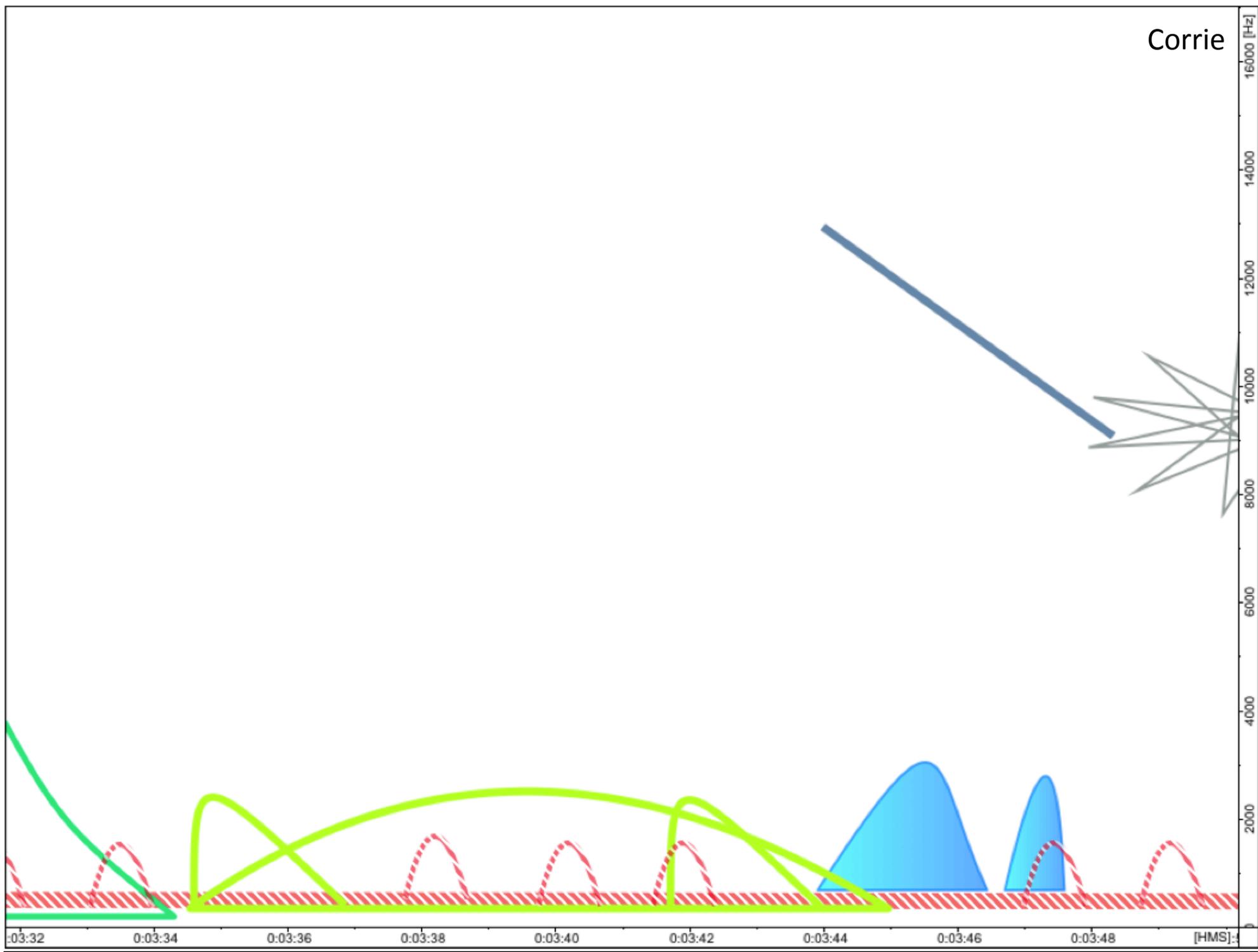
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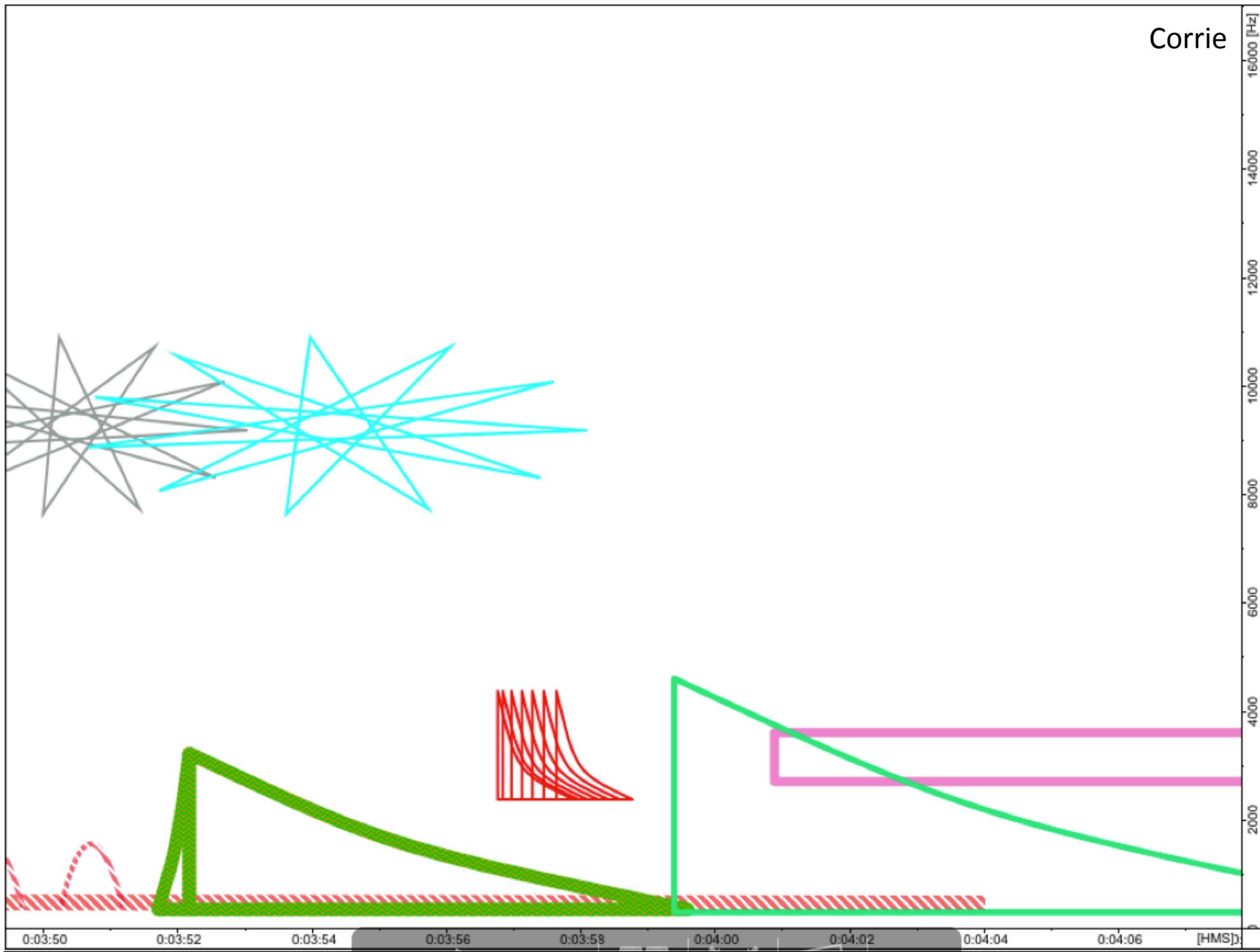
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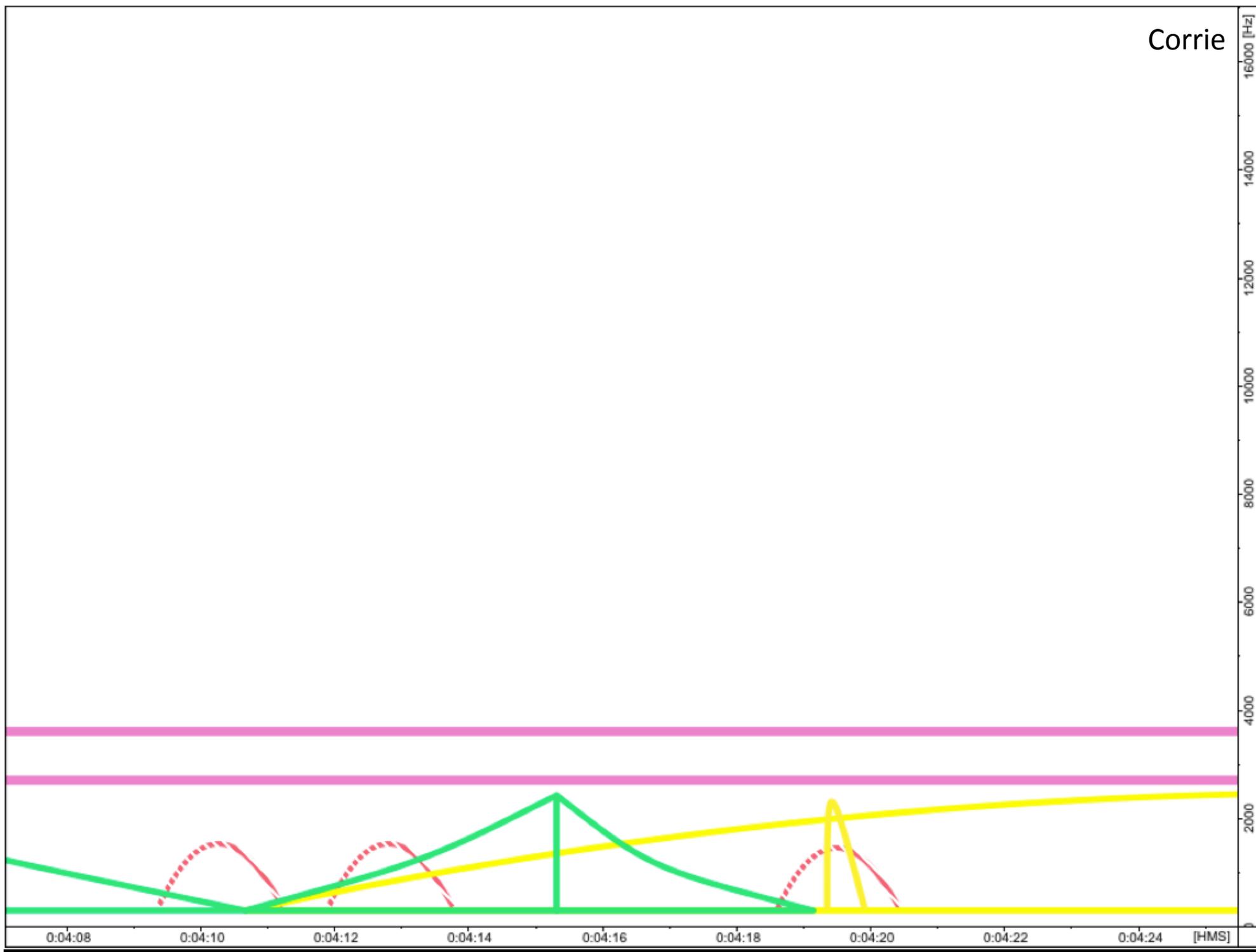
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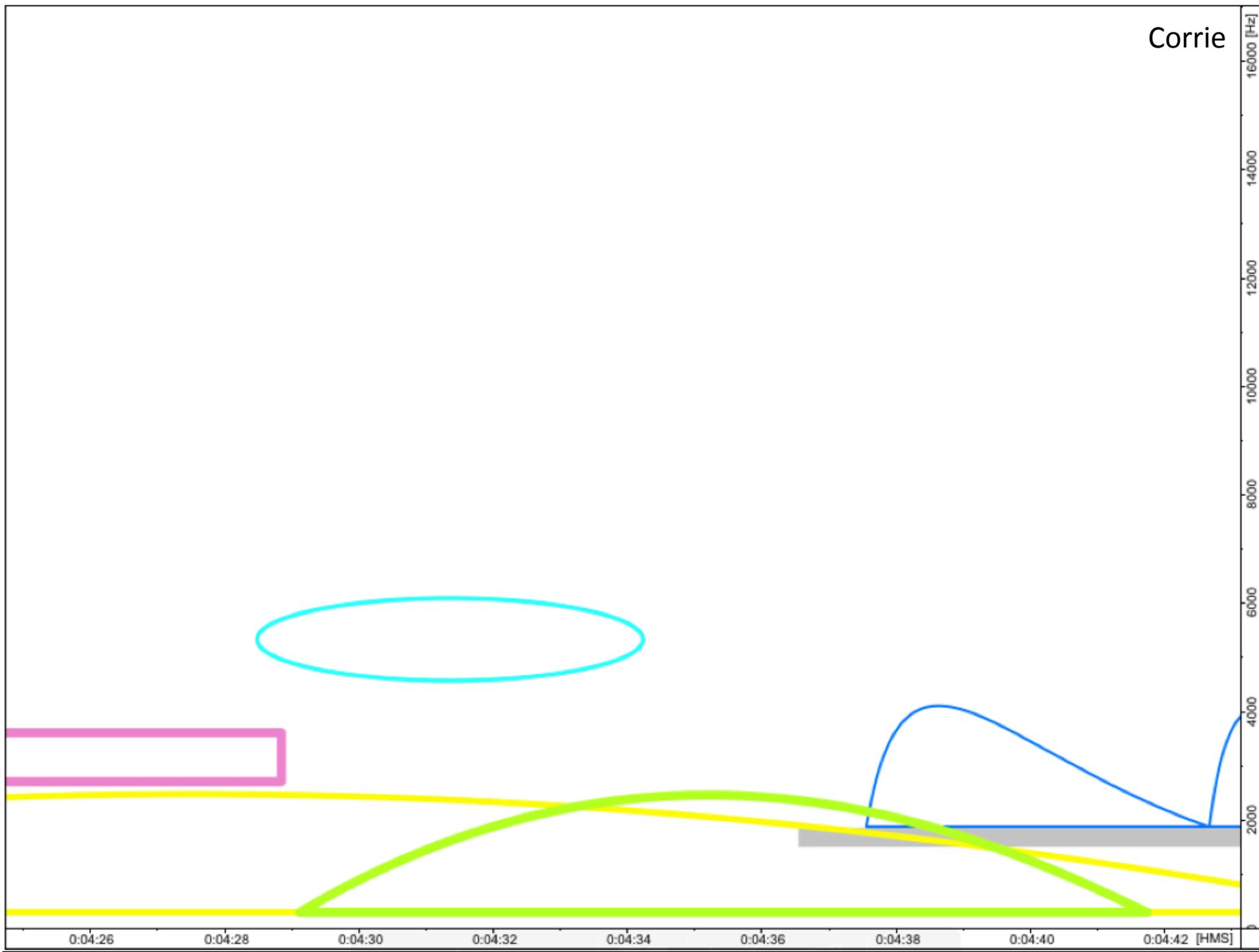
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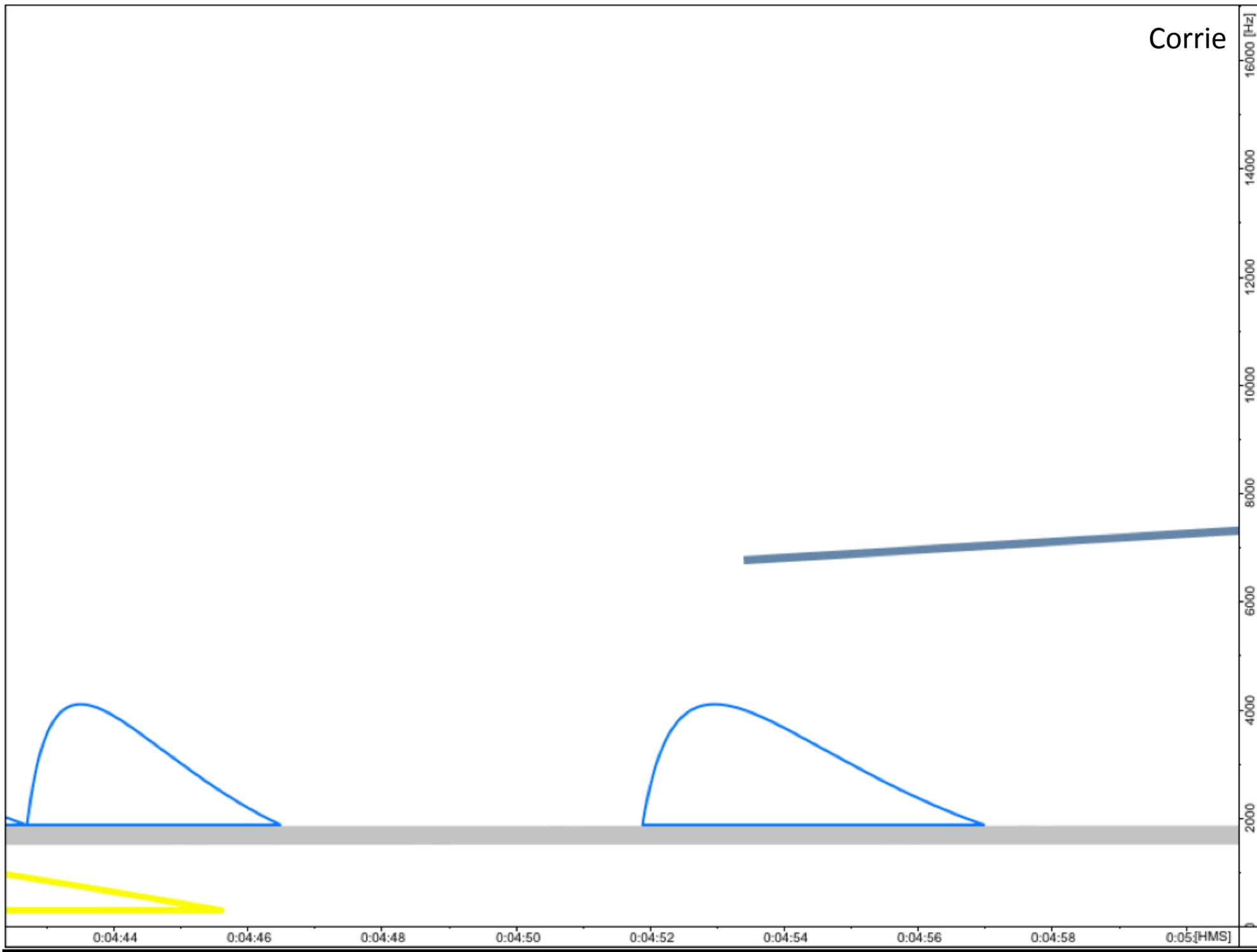
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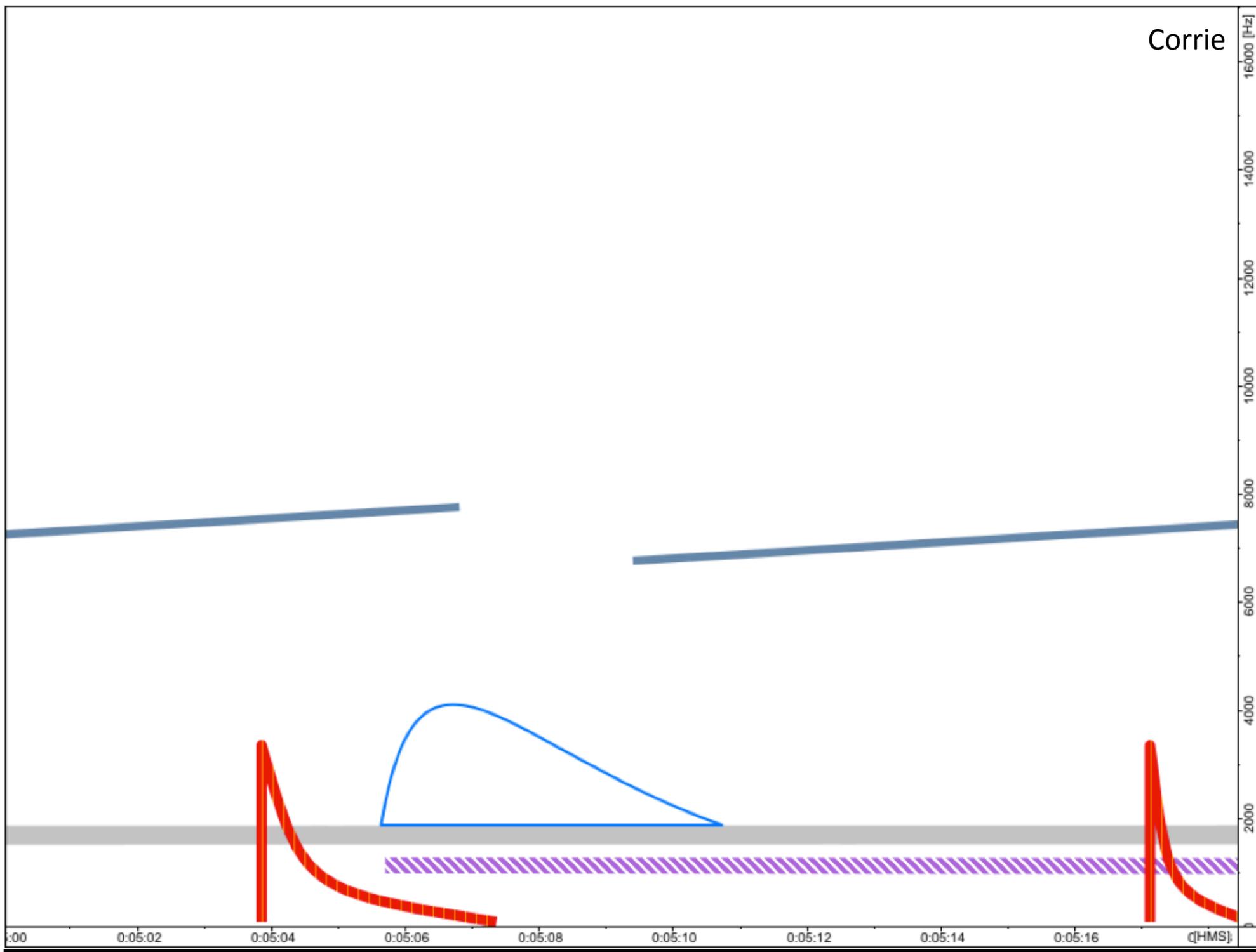
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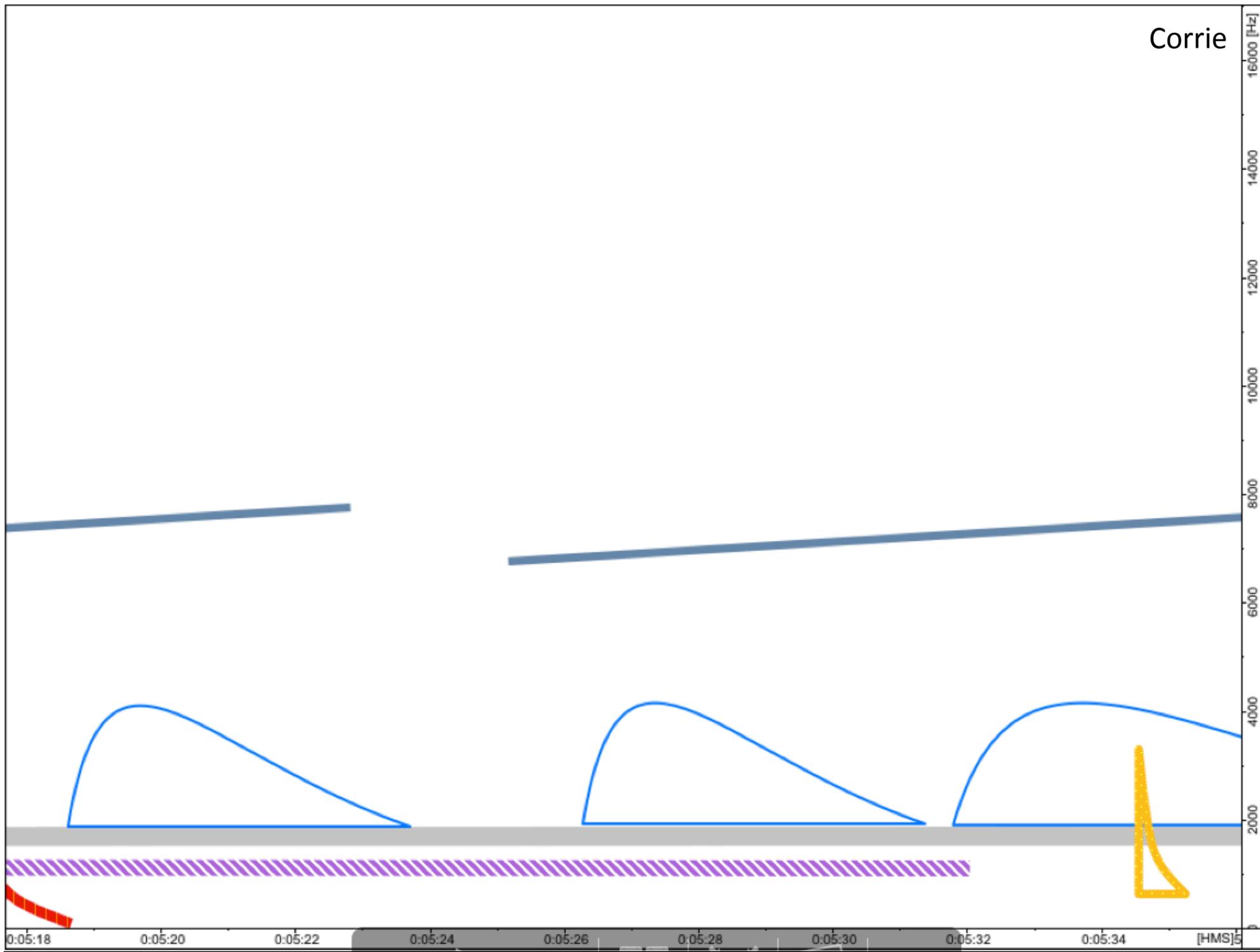
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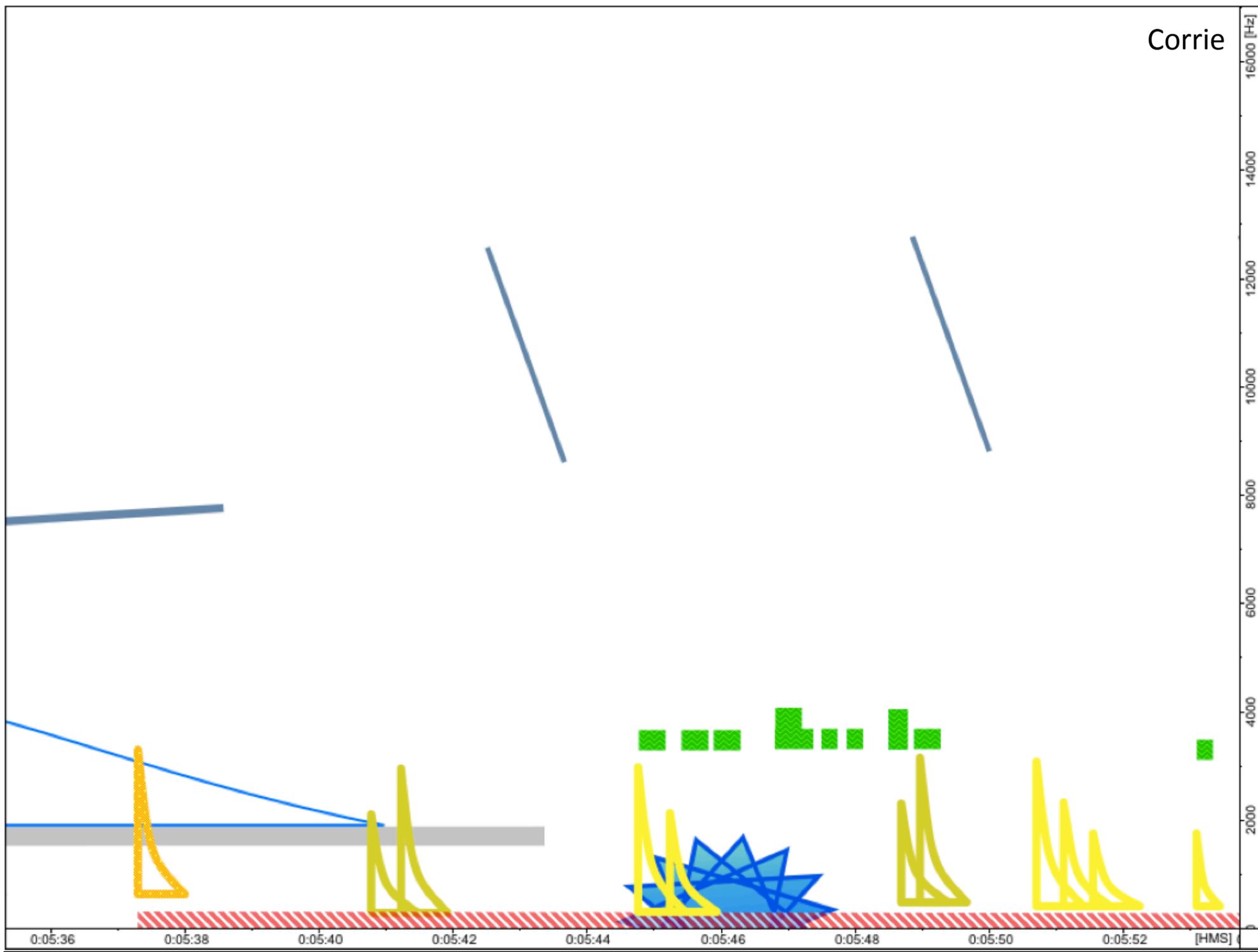
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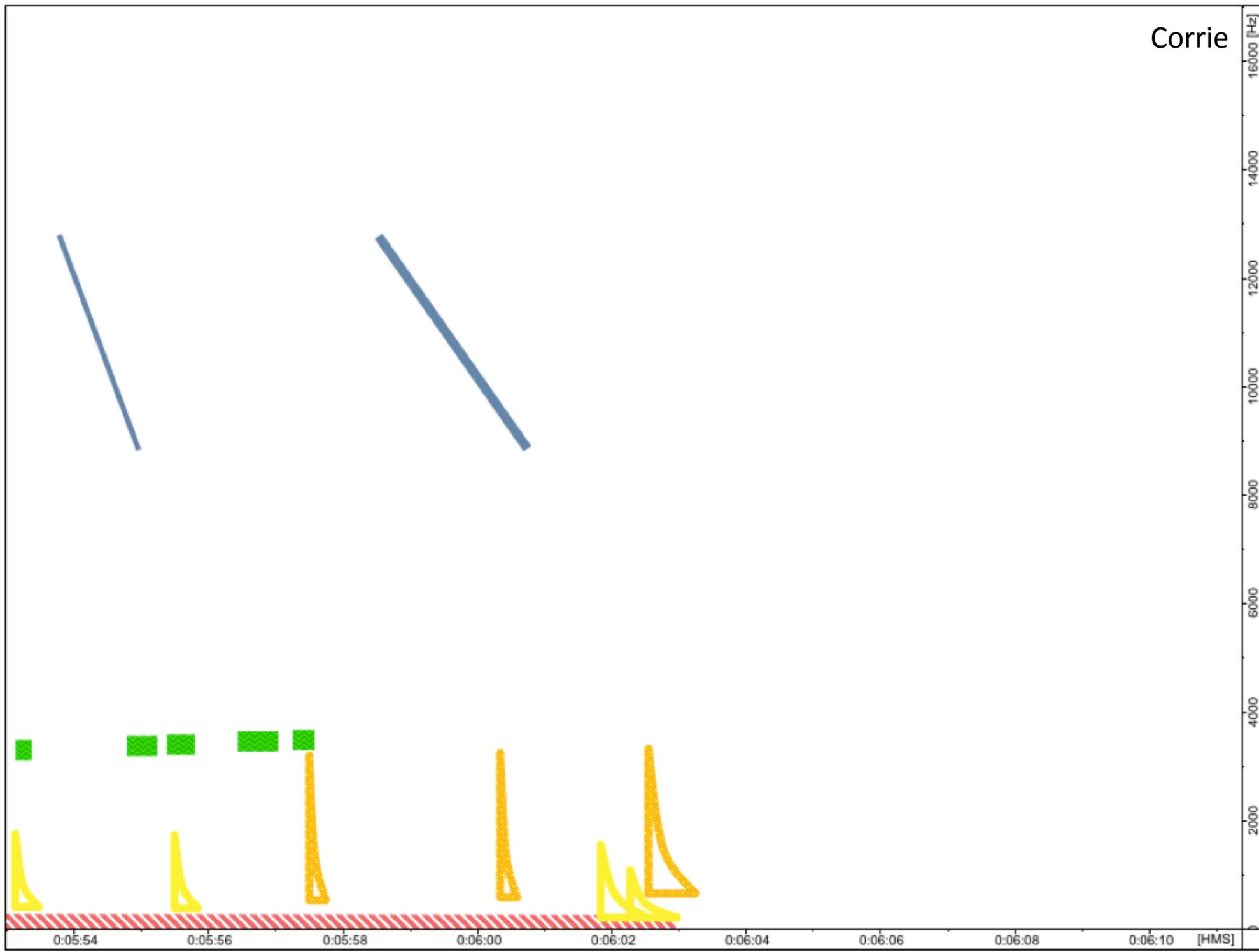
Corrie



Corrie

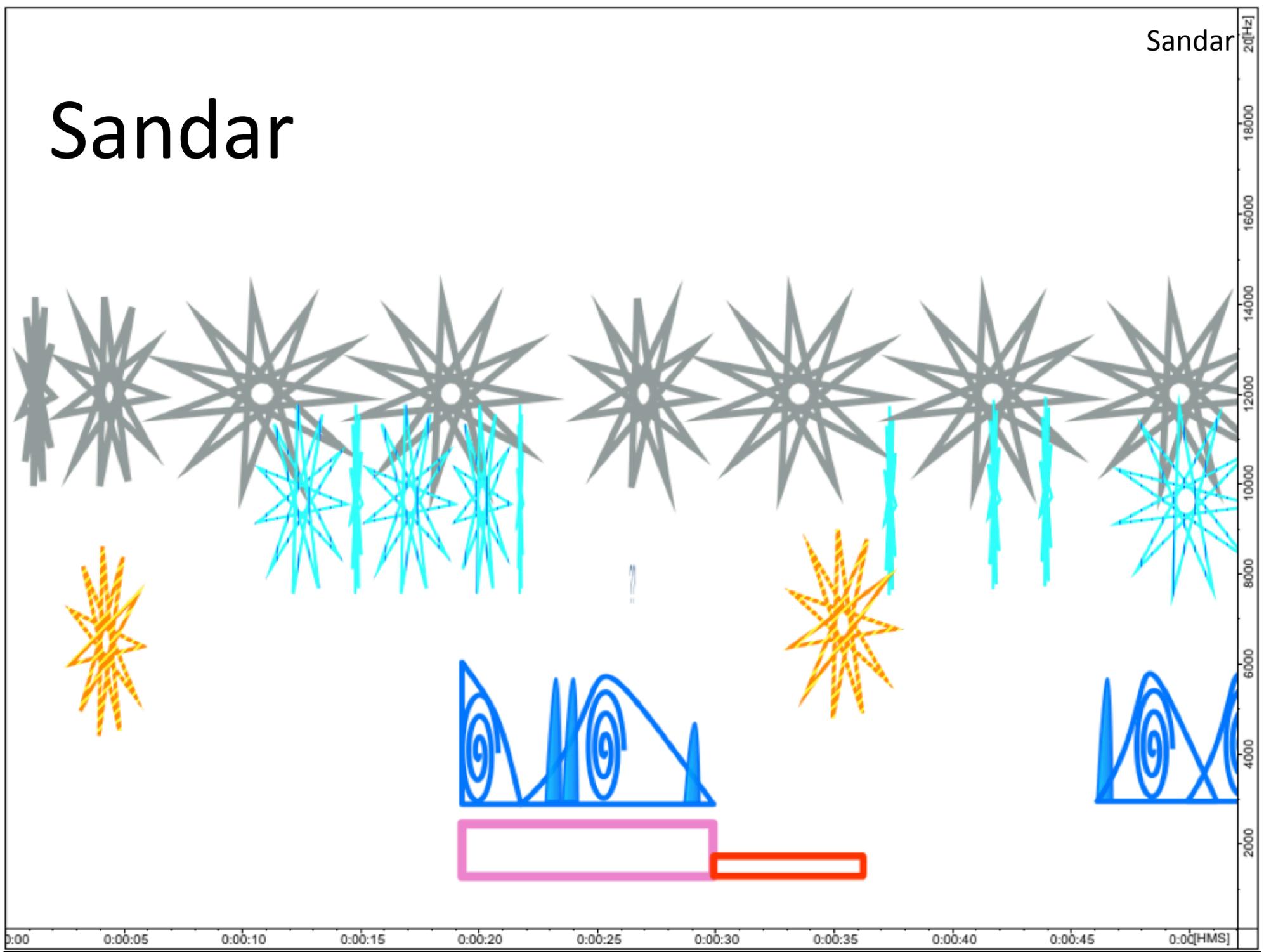


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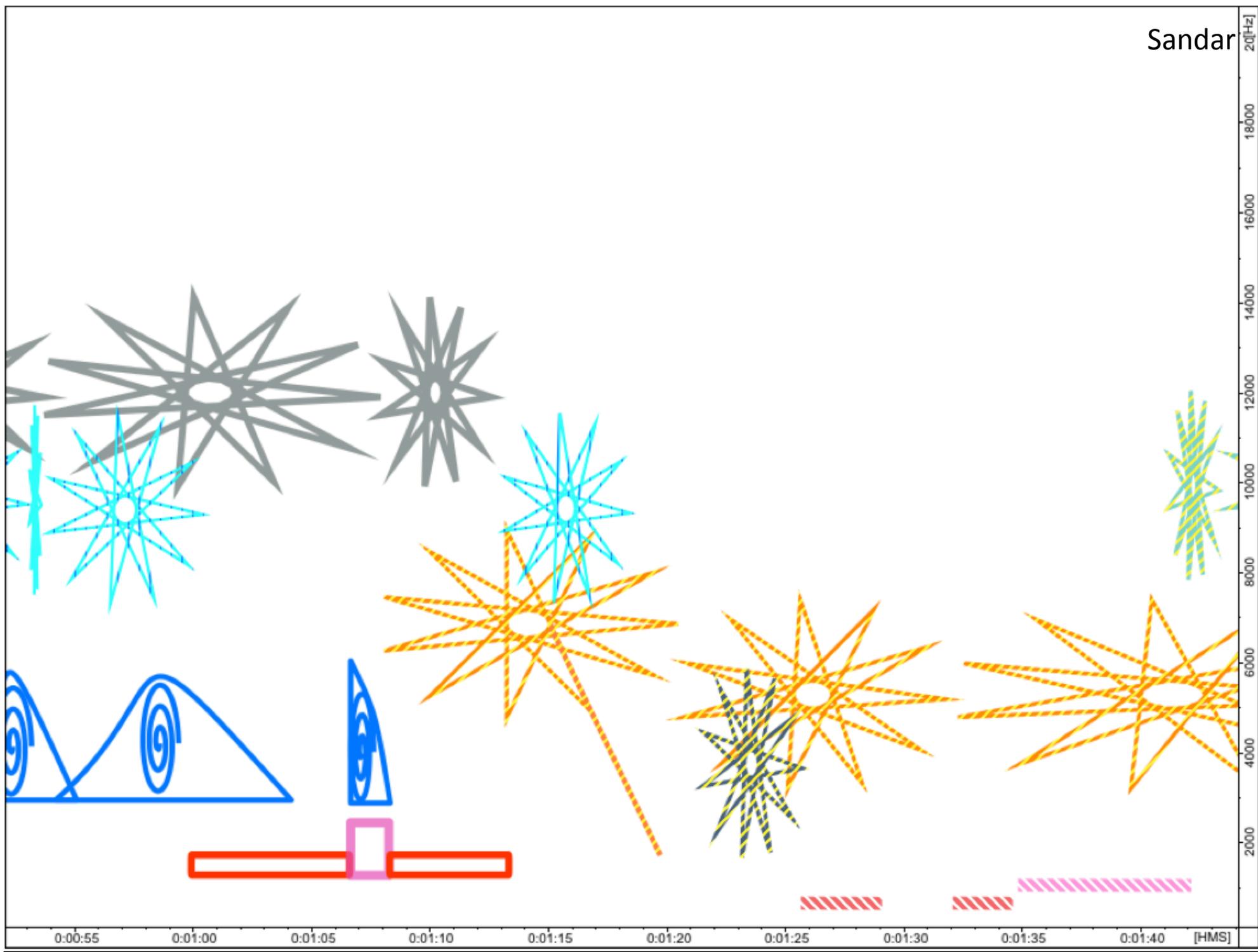


Sandar

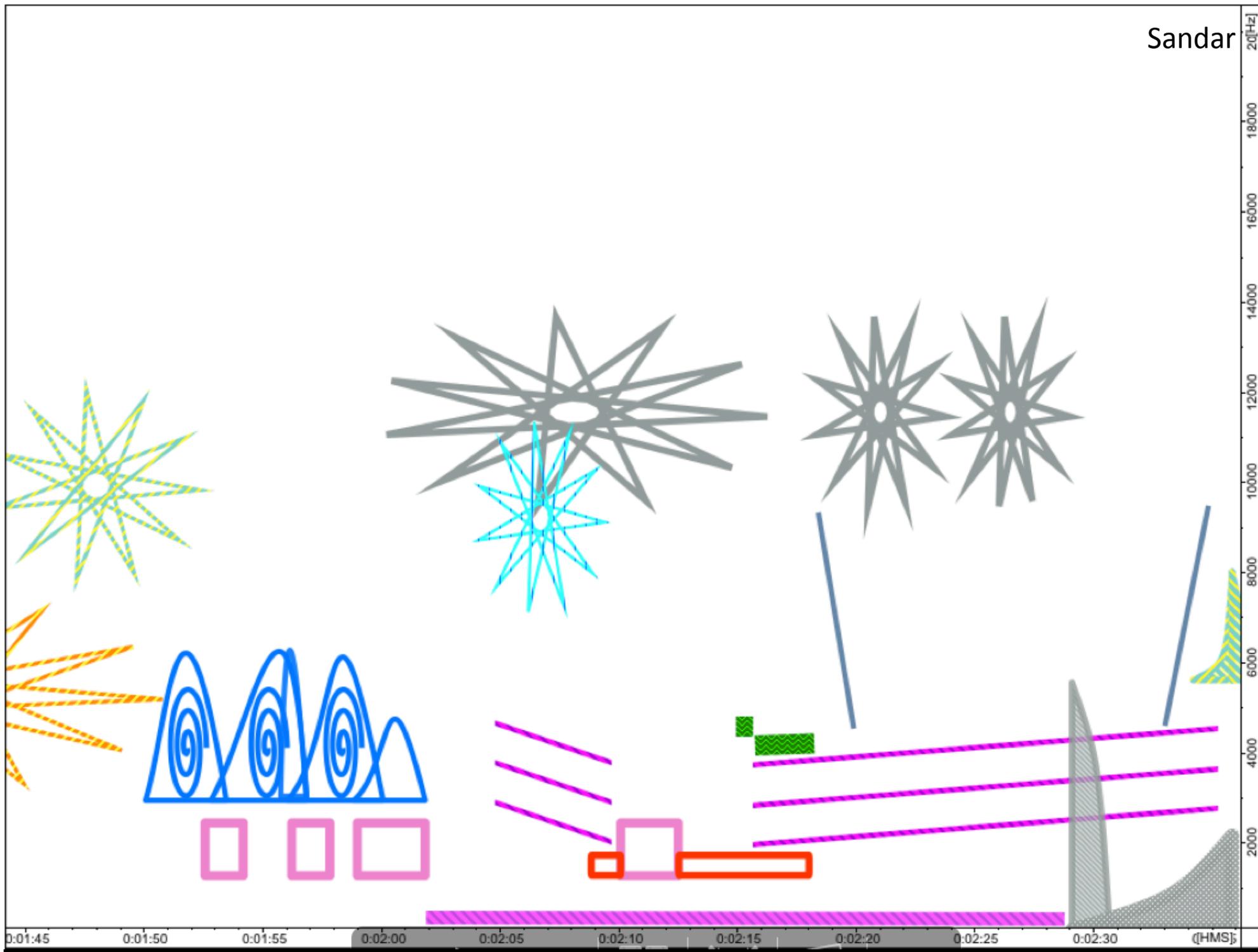
Sandar

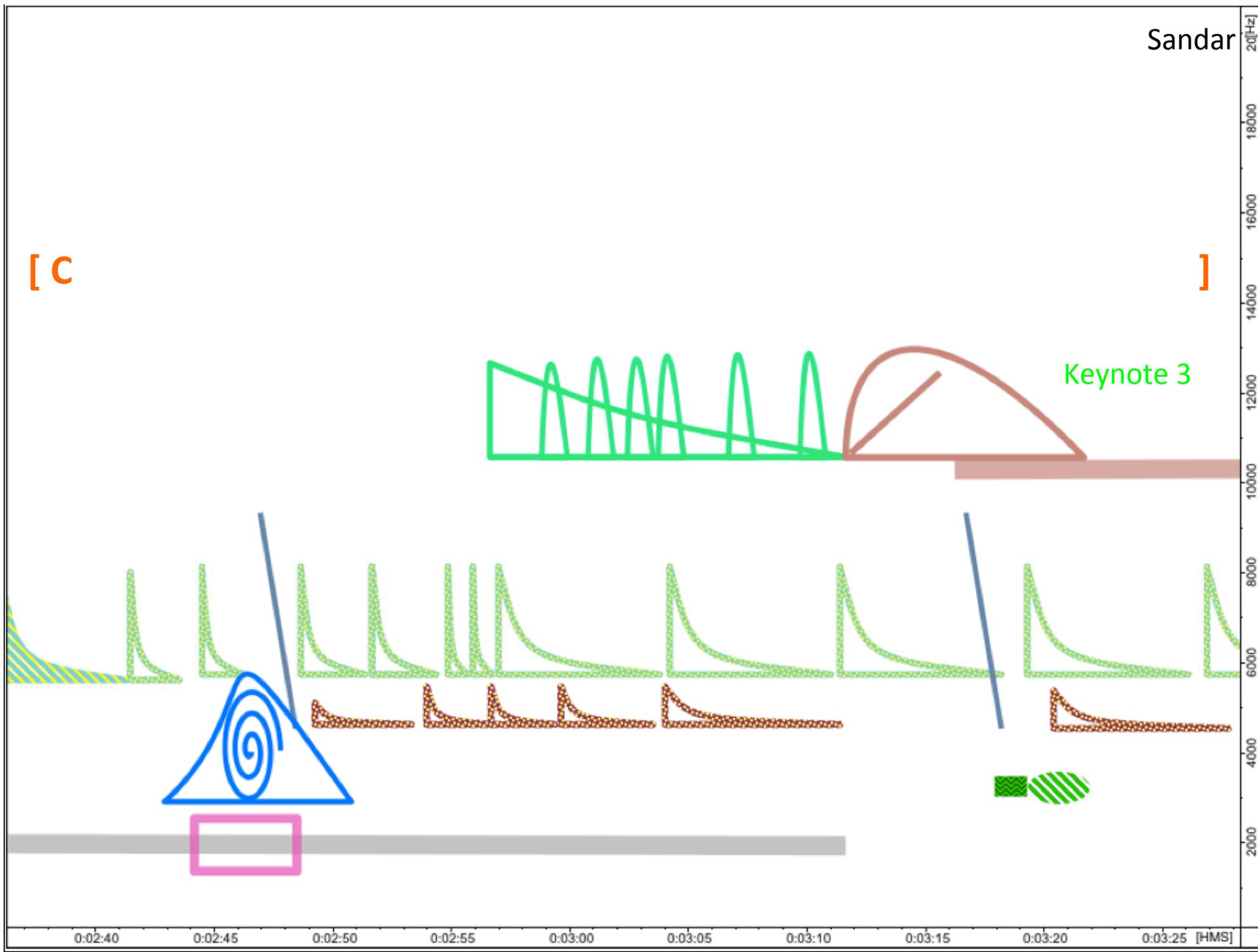


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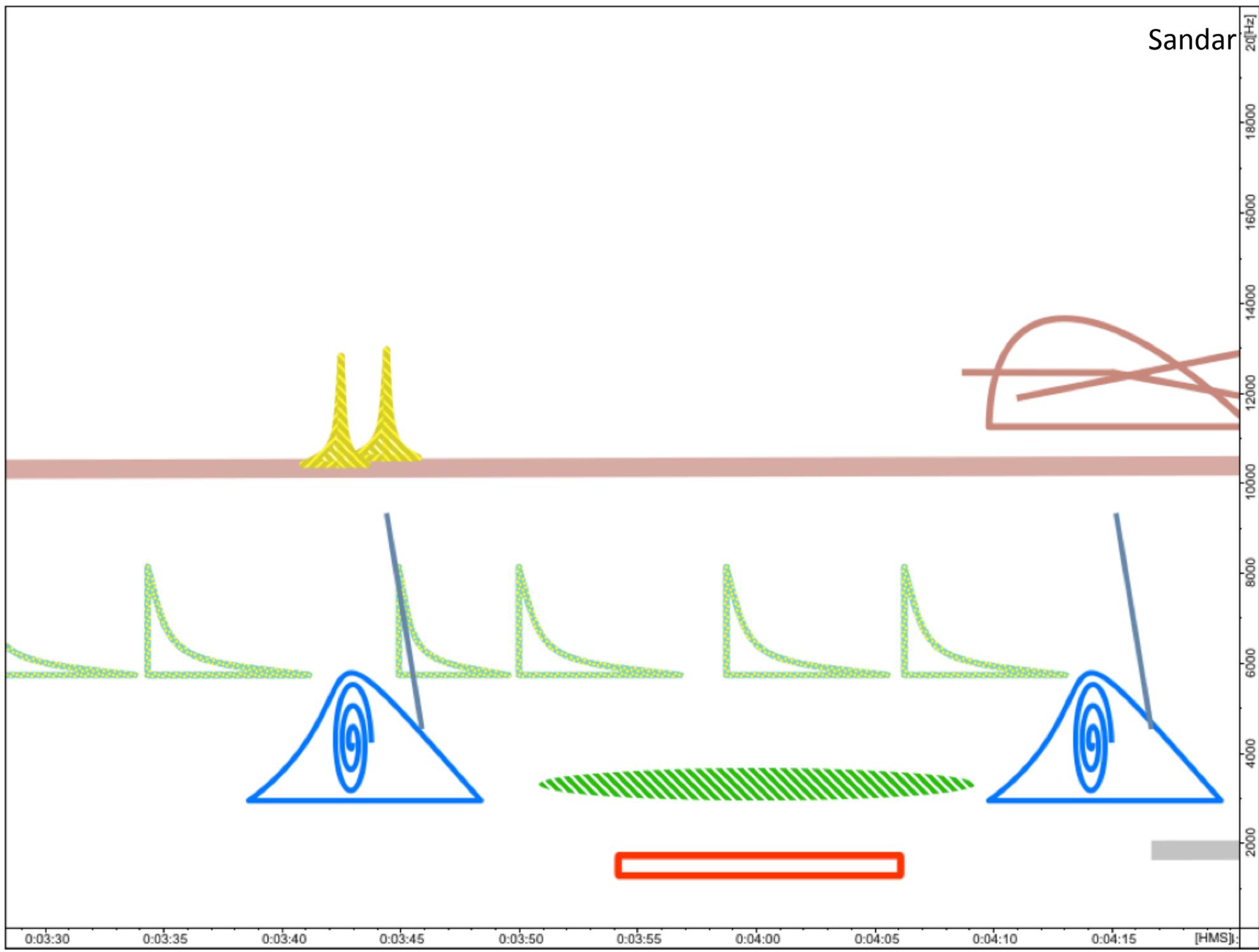


Sandar

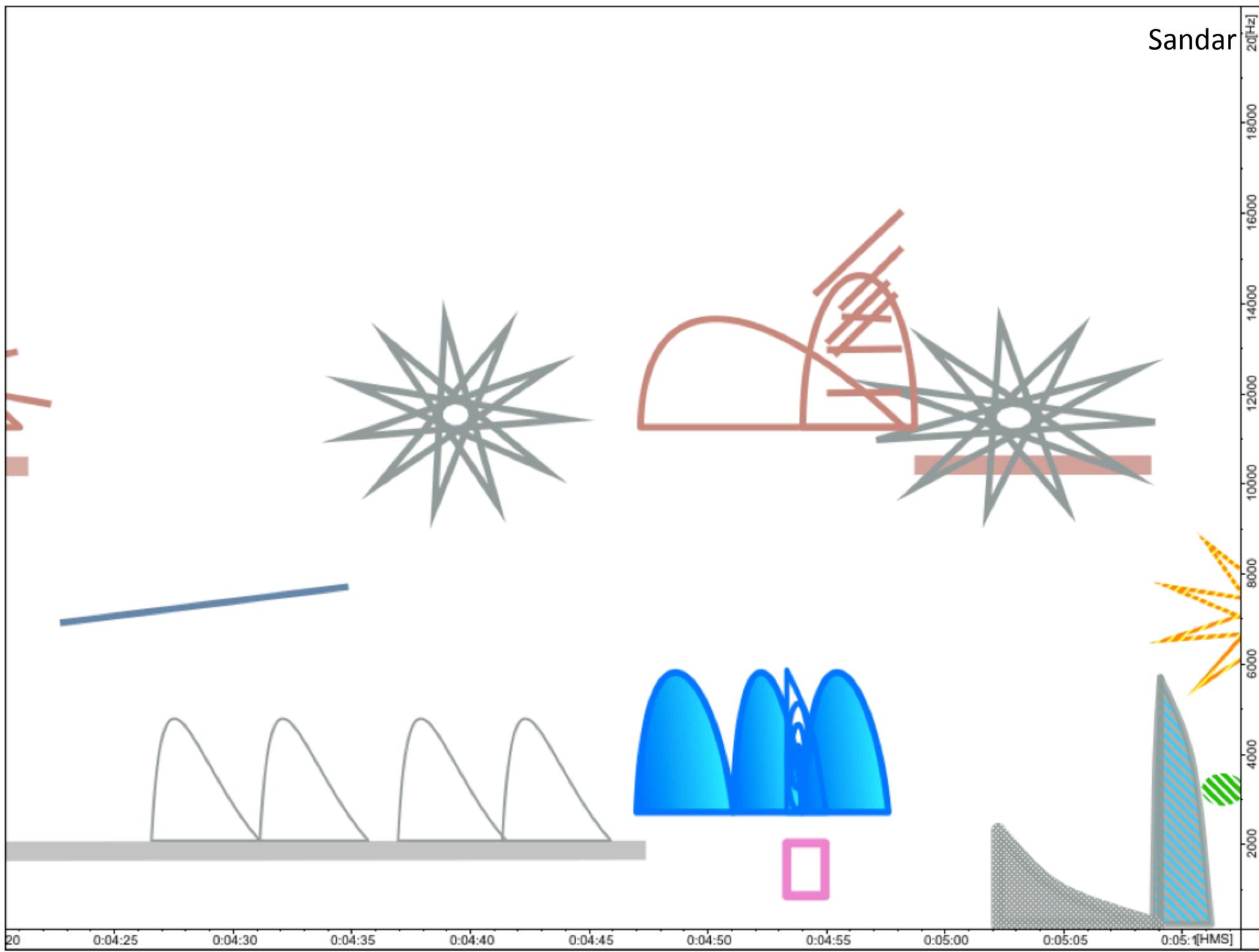




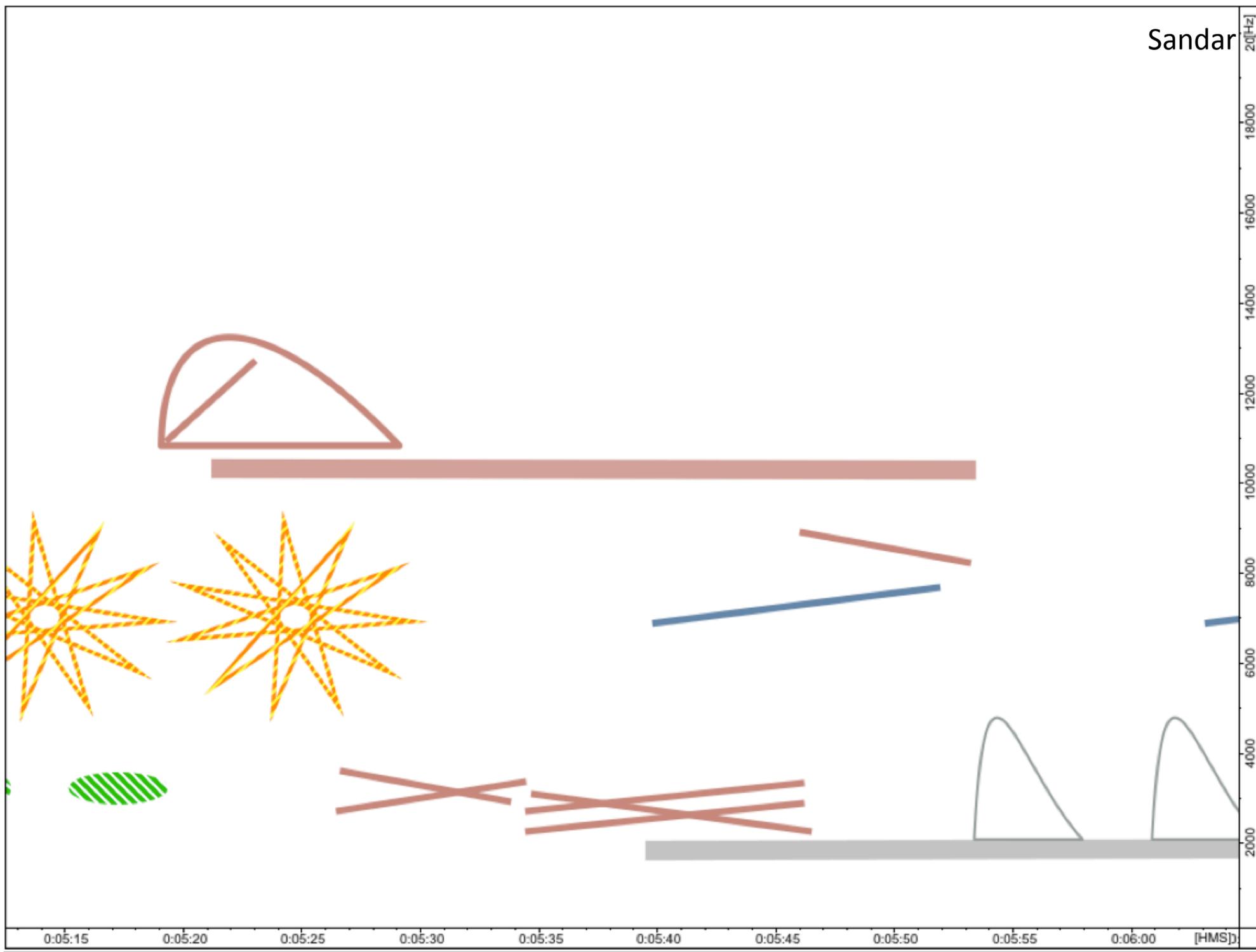
Sandar



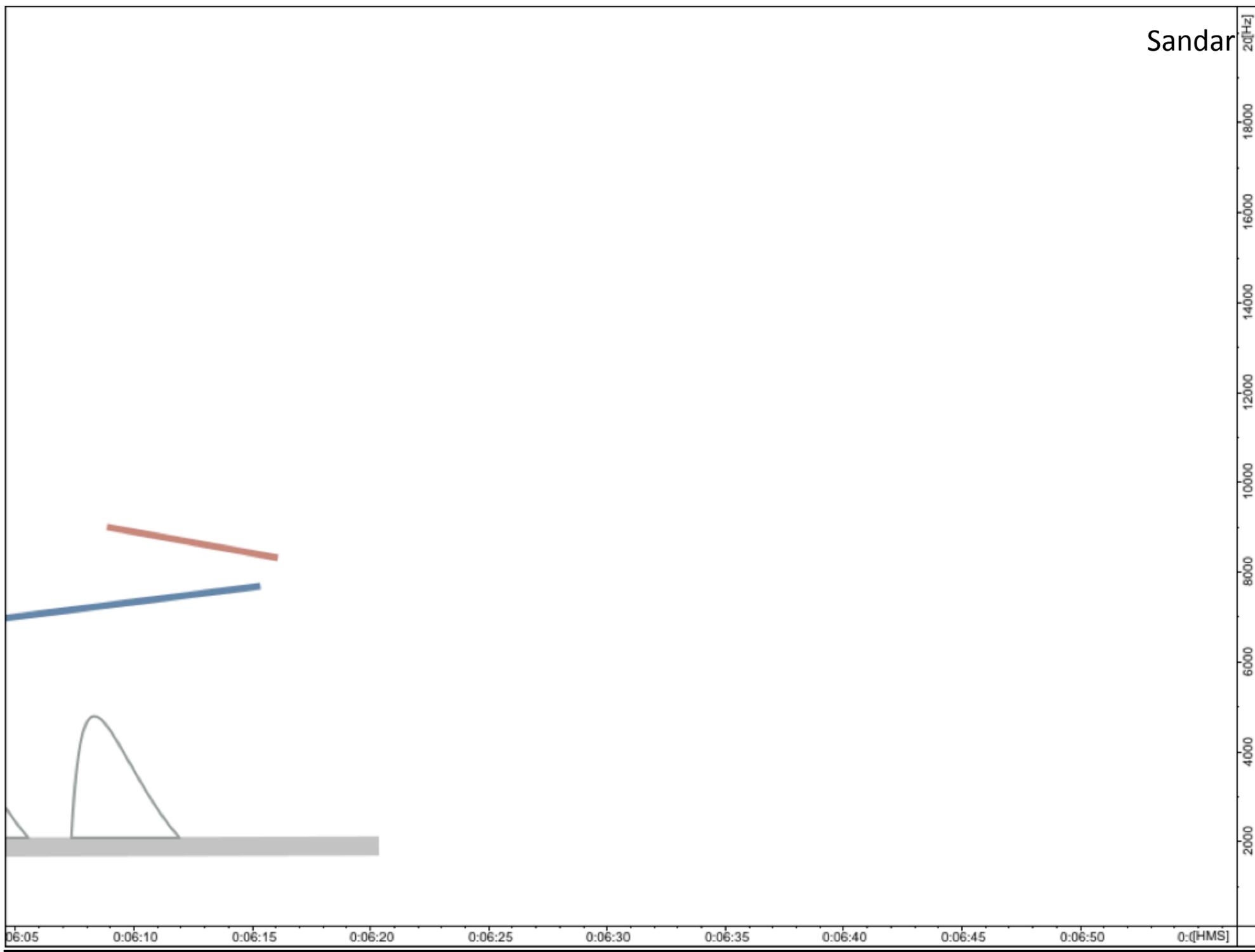
Sandar



Sandar



Sandar



EXAMPLES – Névé

MUSICAL DISCOURSE

Narrative strategy

unveiling original material

Variation through repetition

Same/different elements in different contexts

Title

- Suggests formal structure
- Influences relationship structure/sound material index

Relationship between contexts

Contrast / layering of A – B - C

soundscapes based on different keynotes

CONCLUSIONS

Interaction: mimesis-abstraction

```
graph TD; A[Interaction: mimesis-abstraction] --> B[Modelling of abstract sounds with abstracted syntax (ecological)]; A --> C[Ambiguous sound identities with various surrogation degrees of real gesture]; A --> D[Referential sound elements with minimal transformation]; A --> E[recalling specific soundscapes or spectromorphological natural archetypes]; E --- F[Use of text (program notes)];
```

Modelling of abstract sounds
with **abstracted syntax** (ecological)

Spectromorphological transcontextual
transformation processes

Ambiguous sound identities with
various surrogation degrees of real gesture

recalling specific soundscapes
or spectromorphological natural archetypes

Use of **text** (program notes)

Referential sound elements
with **minimal** transformation

CONCLUSIONS

Interaction: mimesis-abstraction

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```

Modelling of abstract sounds with **abstracted syntax** (ecological)

Spectromorphological transcontextual transformation processes

Empty Vessels / Névé

Ambiguous sound identities with various surrogation degrees of real gesture

Névé

recalling specific soundscapes or spectromorphological natural archetypes

Use of **text** (program notes)

Empty Vessels / Névé

Referential sound elements with **minimal** transformation

Empty Vessels

CONCLUSIONS

Richness of Smalley's acousmatic language

using **soundscape** elements/models



Transcontextuality

on multiple levels
of musical discourse

→ title

→ form

→ synthax

→ materials

CONCLUSIONS

Richness of Smalley's acousmatic language

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Transcontextuality

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Empty Vessels / Névé

Thank you