

STEFFEN KREBBER

SINUSOIDAL

RUN

RHYTHM

WOLKE

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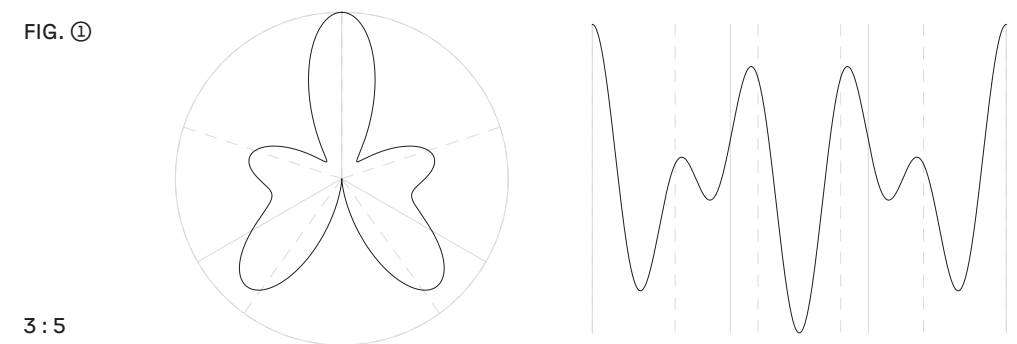
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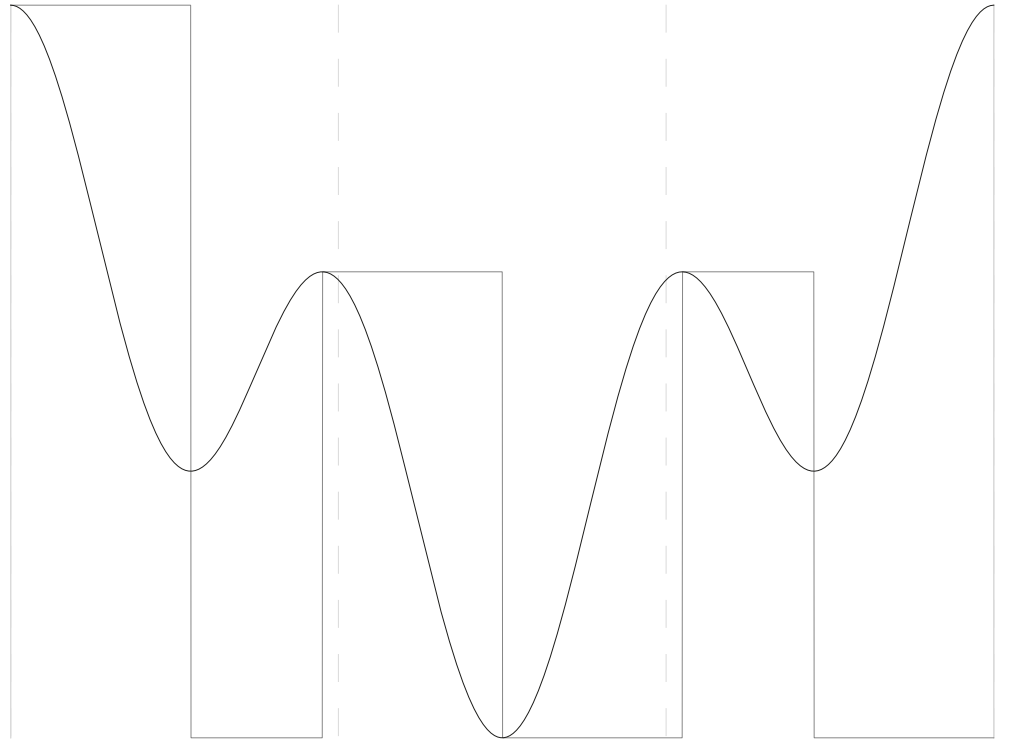
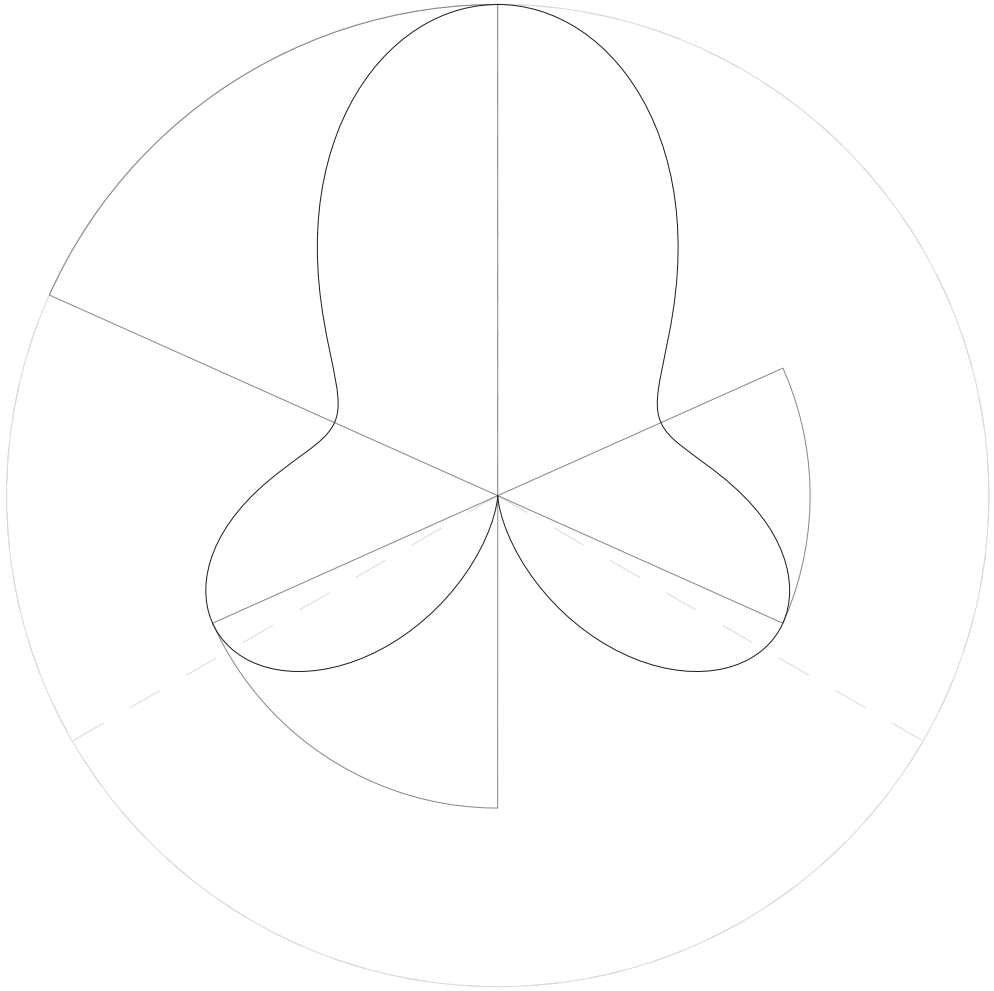
COLOPHON

INTRODUCTION

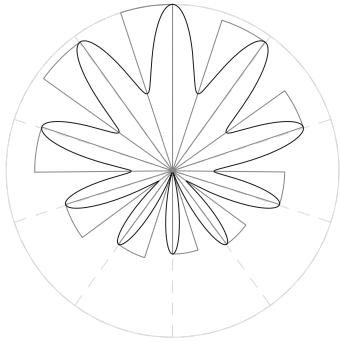
At approximately 16 events per second, humans have an auditory and visual threshold between distinguishable individual events and the perception of flow. Visually, this threshold is the transition from single images to the continuous flow of a film, and auditorily it is the transition from rhythm to frequency. This transition is fraught with conceptual fuzziness. If, for example, one slows down a flute tone to a frequency that is heard as rhythm, one can only see the rhythm as a membrane movement of the loudspeaker and no longer hear the tone. Conversely, the special characteristics of an accelerated rhythm's waveform result in timbre. These inaudible rhythms can become audible by using them as amplitude envelopes—as low frequency oscillators (LFO) often used in electronic music. If one adds up in-phase cosine functions in integer ratios—which are pure intervals in the audible range—these also entail special characteristics in the form of rhythms: they are temporally shifted in their maxima compared to corresponding notated, discrete rhythms, and are thereby something fundamentally different from polyrhythms in the same ratio $a:b$ (→ Fig. ①). In addition, the rhythms have volume weightings between their maxima.¹

FIG. ①



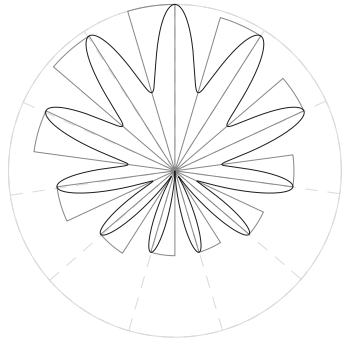


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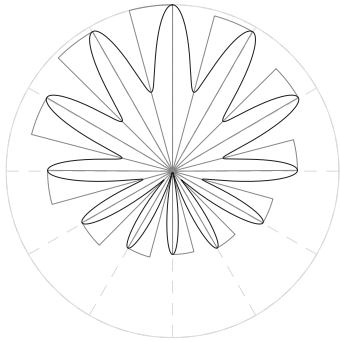


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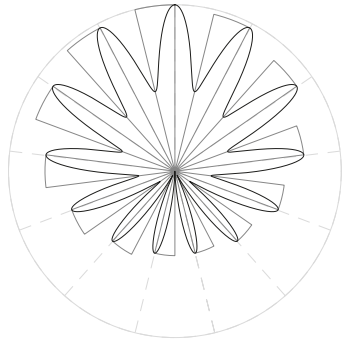
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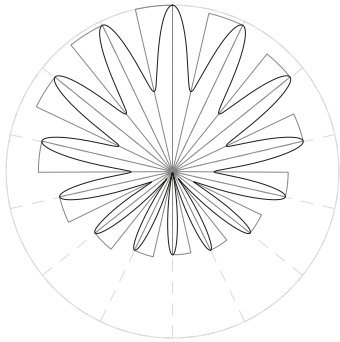
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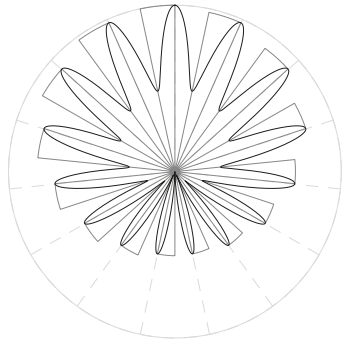
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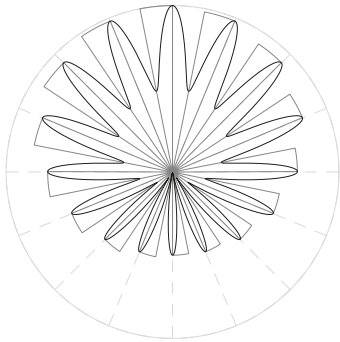
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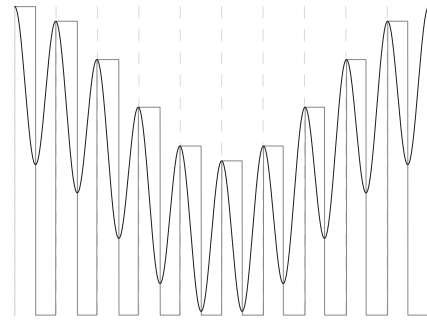
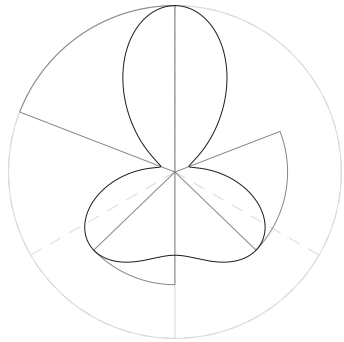
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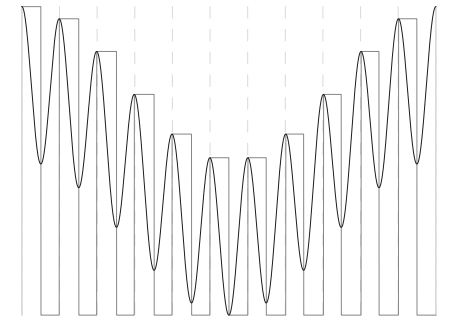
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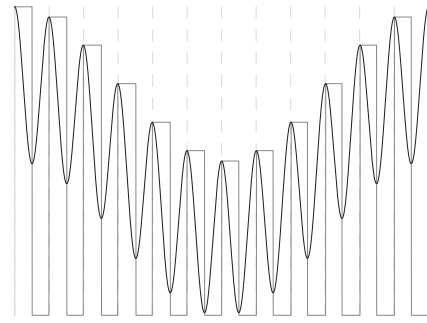
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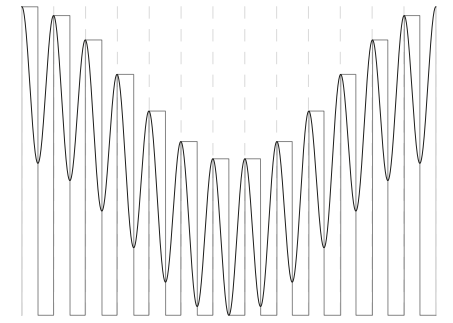
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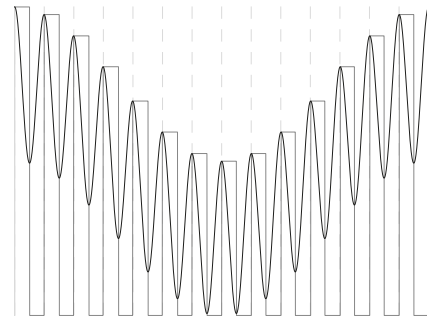
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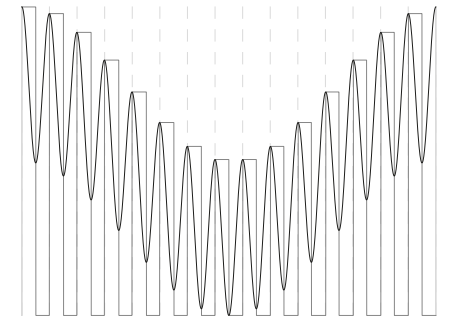
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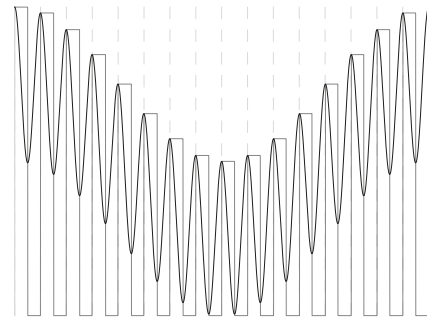
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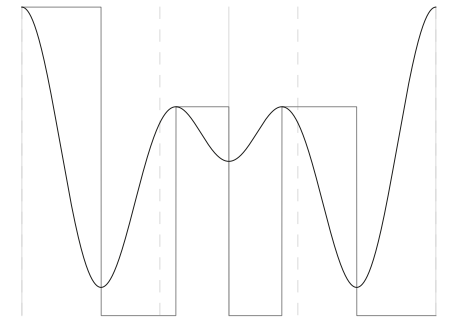
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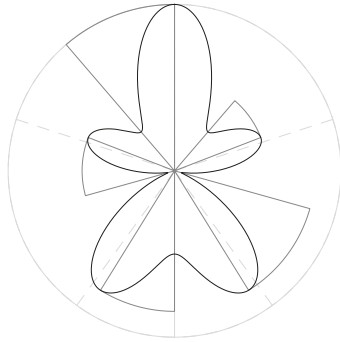
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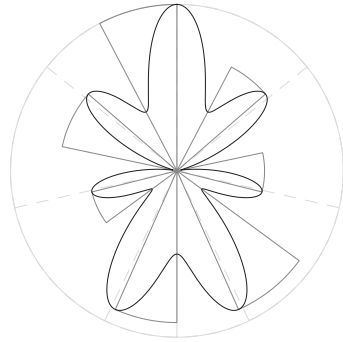
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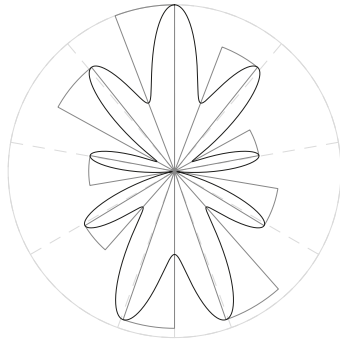


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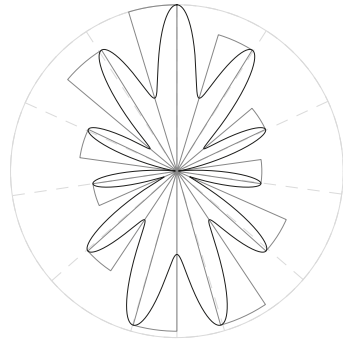
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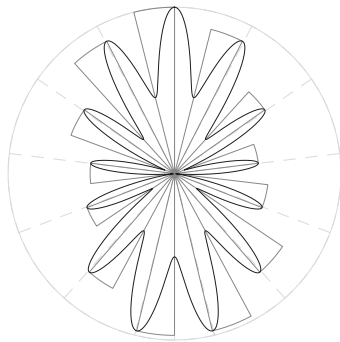
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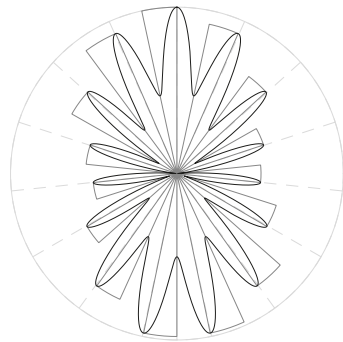
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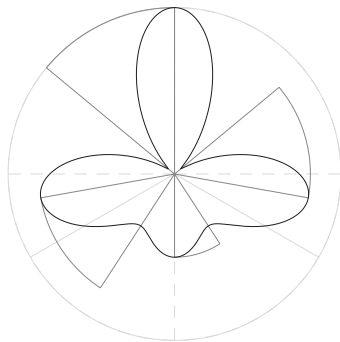
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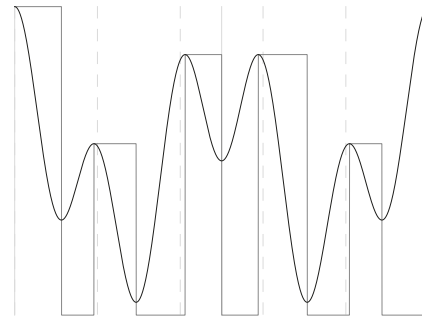
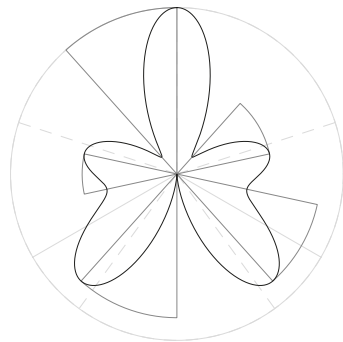
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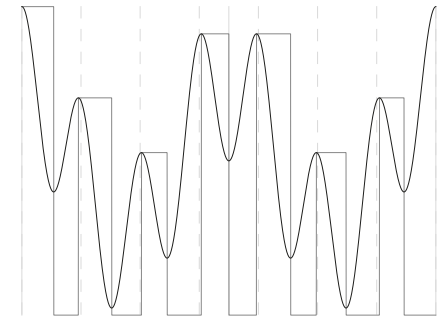
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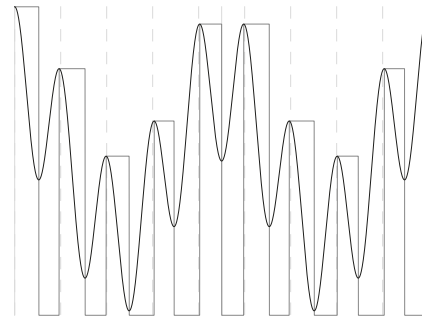
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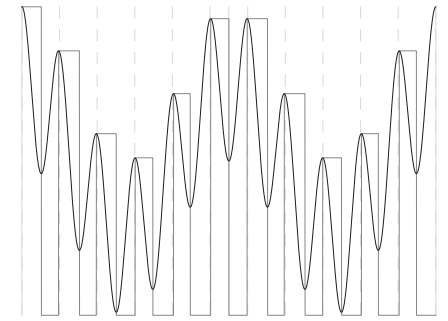
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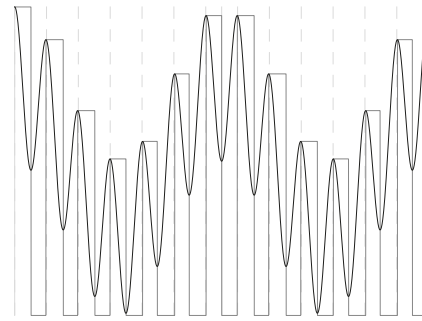
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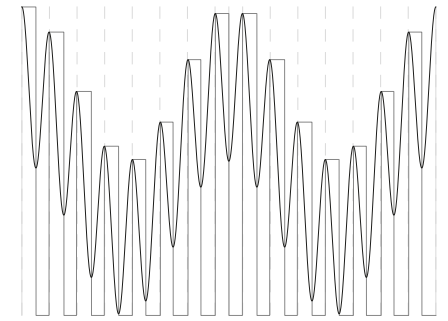
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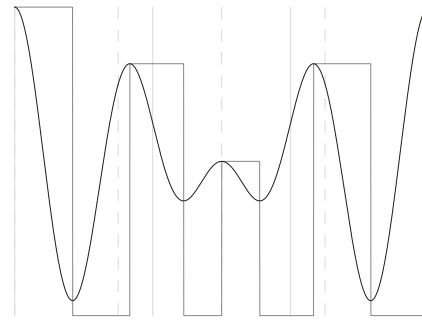
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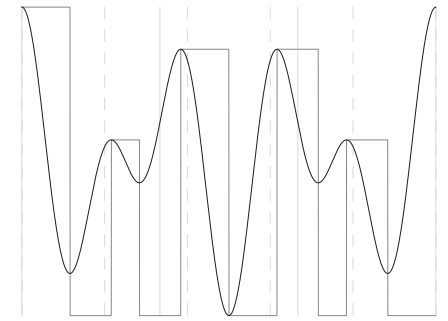
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COLOPHON

Concept, Patch & Text:
Steffen Krebber

Translation:
Joseph Michaels

Code for Illustrations:
Timm Roller
Christian Wörner

Graphic Design:
Studio Nicolas Zupfer
www.nicolaszupfer.com

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