

Gregory Coles Emma Beauxis-Aussalet Martin Krzywinski

# music <br> GREGORY COLES 

words \& art

## EMMA BEAUXIS-AUSSALET

math \& engraving
MARTIN KRZYWINSKI

Welcome to a musical exploration of $\pi$.
Experience this famous number from its beginning ( $314 \ldots$ ) to its very* end (...264). Learn math (Wallis Product) and tell a joke (Feynman Point). Explore its digits through repetition ( nn ) and zeroes (null).

The album is arranged for solo piano and inspired by the greats of 20th century classical music in the style of Boulez and Stockhausen (314...), Ligeti (Feynman Point), Reich and Glass (Wallis Product), Satie (nn), Feldman (null), Kelly, Monk and Powell (...264).

Each piece is accompanied by a piku ( $\pi \mathrm{ku}$ ), which is a poem whose syllable count is determined by the digits of $\pi$.
*known as of August 2021

## 9 314...

The first 282 digits (3.1415...64821)

## 17 Feynman Point

9's and 99's up until the first 999999

## 27 Wallis Product

The first six terms of the calculation of $\pi / 4$

## 33 nn

36 adjacent runs of repeated digits

## 39 null <br> First 116 runs of digits delimited by 0

45 ... 264
The last two minutes of the 62.8 trillion digit world record ${ }^{\text {Aug } 2021}$ computation of $\pi$

3 There you go
1 Straight
4 Number me not
1 Scales
5 There is more of me
9 To forget than you can remember

music
GREGORY COLES words \& art EMMA BEAUXIS-AUSALET math \& engraving MARTIN KRZYWINSKI






9 My oh my! Nine o'clock! My oh my!
9 Et cetera oh et cetera...
9 Almost! Oh oh! More! Oh oh! Almost!
9 Et cetera oh et cetera...
9 Oh nine o'clock! Oh more! Oh more oh!
9 And so on, and so on, and so on.


# Feynman Point 


$\delta=300$ Spiritedly







## 2 Neighbours

1 Scale,
2 Divide,
3 Multiply.
4 Odds get even,
3 Squares round off.

$$
\begin{aligned}
& \begin{array}{lllll}
> \\
\geq & > & > & >
\end{array} \\
& \text { इ } \\
& \begin{array}{llllll}
> & > & > & > & >
\end{array}
\end{aligned}
$$

## Wallis Product

GREGORY COLES
words \& art
EMMA BEAUXIS-AUSSALET
math \& engraving MARTIN KRZYWINSKI




## 2 No where

2 Now here
5 Alone together
5 Alone two gather
4 The same difference
4 The sane grief ends

| 22 | 55 | 44 | 33 | 77 | 22 | 44 | 44 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |

music a Number of notes

## nn

GREGORY COLES
words \& art EMMA BEAUXIS-AUSSALET math \& engraving MARTIN KRZYWINSKI




4 Tranquility
7 Equidistantiated
5 Immobility
2 Silence
1 Fall
6 Materialisation
2 Silence


GREGORY COLES
words \& art
EMMA BEAUXIS-AUSSALET
math \& engraving MARTIN KRZYWINSKI




9 We know we can never have it all
2 Never
4 But yet can we
2 Ever
6 In endless scarcity
4 Have just enough?

$$
\begin{aligned}
& \text { 自 - - - - - - - - } \\
& \% \text { \% } \% \text { \% }
\end{aligned}
$$

$$
\begin{aligned}
& \text { - - - - }
\end{aligned}
$$

d = 180 Relentlessly computing








Gregory Coles Emma Beauxis-Aussalet Martin Krzywinski

