

Violin 1

Refractions

for string quartet

Tom Lane

Commissioned in 2021 by the Banbha Quartet with an Arts Council of Ireland Commissioning Award.
First performed 21st of September 2022.

Duration: Approximately 12 minutes

Programme note:

The title “Refractions” refers in part to the kaleidoscopic harmony of the piece's musical material – rotating clashing major thirds whose close proximity create colourful contrast. This material is then continuously refracted using various techniques to create alternating sections which explore the potential of this rich musical content. Structurally, the piece continuously returns to the musical material of the opening in a quasi-rondo form. The intervening passages develop different characteristics of the opening material until an extended melodic passage is reached about two thirds of the way through the piece. A densely chromatic rising section builds tension before returning to a reimagined version of the music from the beginning of the piece.

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Refractions

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Violin 1

Tom Lane
January - July 2022

Flowing ♩ = c. 90

Musical staff with time signature changes: 5/4, 4/4, 3/8, 4/4, 3/8, 4/4, 2/4.

7 *Vla.:*

Musical staff with time signature changes: 2/4, 5/4, 4/4, 3/8, 4/4, 3/8, 4/4, 2/4. Dynamics: *p*.

14

Musical staff with time signature changes: 2/4, 5/4, 4/4, 3/8, 4/4. Dynamics: *f*, *p*.

18

Musical staff with time signature changes: 4/4, 3/8, 4/4, 2/4, 5/4.

A

22

Musical staff with time signature changes: 5/4, 4/4, 3/8, 4/4, 3/8, 4/4. Dynamics: *f*, *p*, *f*, *p*.

27

B pizz.

Musical staff with time signature changes: 4/4, 3/8, 4/4. Dynamics: *f*, *pp*.

31

Musical staff with time signature changes: 4/4, 3/8, 4/4.

34

Musical staff with time signature changes: 4/4, 3/8, 4/4, 3/8.

C

38

Musical staff with time signature changes: 3/8, 5/4, 4/4, 3/8, 4/4, 3/8, 4/4. Dynamics: *f*.

Refractions - Violin 1

44 *Vla.:* *arco*
Musical notation for measures 44-50. Includes dynamic marking *p*.

51
Musical notation for measures 51-54. Includes dynamic markings *f* and *p*.

55
Musical notation for measures 55-59.

60 **D**
Musical notation for measures 60-64. Includes dynamic markings *f*, *p*, and *f*.

65 **E** (V)
Musical notation for measures 65-70. Includes dynamic markings *f* and *p*.

71 **F** *Grazioso* ♩ = c. 64
Musical notation for measures 71-77. Includes dynamic markings *sfz*, *subito p*, *pp*, and *pp*. Includes *rit.* marking.

78
Musical notation for measures 78-82. Includes dynamic markings *mf* and *pp*.

83 **G**
Musical notation for measures 83-87. Includes dynamic markings *mf* and *p*.

88
Musical notation for measures 88-92. Includes dynamic markings *mf* and *p*.

93
Musical notation for measures 93-99. Includes dynamic markings *ff*, *p*, and *sfz*.

100 **H** *Flowing* ♩ = c. 90
Musical notation for measures 100-104. Includes dynamic markings *subito p* and *ppp*.

3
107 Refractions - Violin 1
Vla.:
 Musical staff 107-112: Treble clef, key signature of two sharps (F# and C#). Time signatures: 3/8, 4/4, 2/4, 5/4, 4/4, 3/8, 4/4. Dynamics: *p*.

113
 Musical staff 113-117: Treble clef, key signature of two sharps. Time signatures: 4/4, 3/8, 4/4, 2/4, 5/4, 4/4. Dynamics: *f*, *p*.

118
 Musical staff 118-121: Treble clef, key signature of two sharps. Time signatures: 4/4, 3/8, 4/4, 3/8, 4/4. Dynamics: *f*, *p*.

122
 Musical staff 122-125: Treble clef, key signature of two sharps. Time signatures: 4/4, 2/4, 5/4, 4/4, 3/8. Dynamics: *f*, *p*. Marking: **I**.

126
 Musical staff 126-130: Treble clef, key signature of two sharps. Time signatures: 3/8, 4/4, 3/8, 4/4, 3/8, 4/4. Dynamics: *f*, *p*, *f*.

J poco meno mosso
♩ = c. 84
131
 Musical staff 131-137: Treble clef, key signature of two sharps. Time signature: 4/4. Dynamics: *f*, *p*, *f*, *p*, *f*, *p*, *f*. Marking: **(V)**.

138
 Musical staff 138-144: Treble clef, key signature of two sharps. Time signature: 4/4. Dynamics: *p*, *f*, *p*. Marking: *rit.*

145
 Musical staff 145-150: Treble clef, key signature of two sharps. Time signature: 4/4. Dynamics: *f*, *p*, *ppp*, *p*, *f*.

K Con moto
♩ = c. 94
151
 Musical staff 151-154: Treble clef, key signature of two sharps. Time signatures: 4/4, 7/8, 4/4, 7/8, 4/4. Dynamics: *p* leggiero.

155
 Musical staff 155-158: Treble clef, key signature of two sharps. Time signatures: 4/4, 7/8, 4/4, 7/8, 4/4. Dynamics: *pp*, *mf*.

160

Musical staff 160-163: Treble clef, key signature of three sharps (F#, C#, G#). Measures 160-163. Rhythmic patterns: 8/8, 4/4, 7/8, 4/4, 7/8. Dynamics: *mf*. Includes hairpins and a fermata over the final measure.

164

Musical staff 164-167: Treble clef, key signature of three sharps. Measures 164-167. Rhythmic patterns: 8/8, 4/4, 7/8, 4/4, 7/8. Dynamics: *mf* and *p*. Includes hairpins and a fermata over the final measure.

168

Musical staff 168-172: Treble clef, key signature of three sharps. Measures 168-172. Rhythmic patterns: 8/8, 4/4, 7/8, 4/4, 7/8, 4/4. Dynamics: *mf*. Includes hairpins and a fermata over the final measure.

173

L

Musical staff 173-176: Treble clef, key signature of three sharps. Measures 173-176. Rhythmic patterns: 4/4, 7/8, 4/4, 7/8, 4/4. Dynamics: *subito p*. Includes hairpins.

177

Musical staff 177-180: Treble clef, key signature of three sharps. Measures 177-180. Rhythmic patterns: 4/4, 7/8, 4/4, 7/8, 4/4. Includes hairpins.

181

Musical staff 181-184: Treble clef, key signature of three sharps. Measures 181-184. Rhythmic patterns: 4/4, 7/8, 4/4, 7/8, 4/4. Dynamics: *mf*. Includes hairpins.

185

M

Musical staff 185-188: Treble clef, key signature of three sharps. Measures 185-188. Rhythmic patterns: 4/4, 7/8, 9/8, 4/4. Dynamics: *f*. Includes hairpins.

189

rit.

Musical staff 189-192: Treble clef, key signature of three sharps. Measures 189-192. Rhythmic patterns: 4/4, 4/4, 4/4, 4/4. Dynamics: *rit.*. Includes hairpins and a fermata over the final measure.

244

248

252

8va--- [R]

f *p*

256

<f *p* *f*

[S] *Grazioso*

261 $\text{♩} = c. 64$

266

rit. [T] *Presto* $\text{♩} = c. 130$

mf

271

275

279

8va--- [U]

ff *sffz* *sffz* *sffz*

[V] *Grazioso* $\text{♩} = c. 64$

284

p *sffz*

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Refractions

for String Quartet

Violin 2

Tom Lane
January - July 2022

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Musical staff with time signature changes: 5/4, 4/4, 3/8, 4/4, 3/8, 4/4, 2/4.

7 *Vla.:*

Musical staff with time signature changes: 2/4, 5/4, 4/4, 3/8, 4/4, 3/8, 4/4, 2/4. Includes dynamic marking *p*.

14

Musical staff with time signature changes: 2/4, 5/4, 4/4, 3/8, 4/4. Includes dynamic markings *f* and *p*.

18

Musical staff with time signature changes: 4/4, 3/8, 4/4, 2/4, 5/4.

A

22

Musical staff with time signature changes: 5/4, 4/4, 3/8, 4/4, 3/8, 4/4. Includes dynamic markings *f*, *p*, and *f*.

B

27

Musical staff with time signature changes: 4/4, 3/8, 4/4. Includes dynamic markings *f* and *pp*, and a *pizz.* marking.

31

Musical staff with time signature changes: 4/4, 3/8, 4/4.

34

Musical staff with time signature changes: 4/4, 3/8, 4/4, 3/8.

C

38

Musical staff with time signature changes: 3/8, 5/4, 4/4, 3/8, 4/4, 3/8, 4/4, 2/4. Includes dynamic marking *f*.

45 *Vla.:* *arco*

52

56

60

65

71 *rit.*

78

83

88

93

100

107 *Vla.:*

p

113

f p

118

122 I

f p <

126

< f p f

J *poco meno mosso*
 131 $\text{♩} = \text{c. } 84$ (V)

f > p f > p f > p f

138

> p f > p

146 *rit.* K *Con moto*
 $\text{♩} = \text{c. } 94$

f > p > ppp p f > p leggiero

152

pp

156



Musical staff 156-159: Treble clef, key signature of two sharps (F# and C#). The staff contains a sequence of eighth notes with slurs and dynamic markings. The time signature changes from 7/8 to 4/4, then back to 7/8, and finally to 4/4.

160



Musical staff 160-163: Treble clef, key signature of two sharps. Continuation of the eighth-note sequence with slurs and dynamic markings. Time signature changes from 7/8 to 4/4, then back to 7/8, and finally to 4/4.

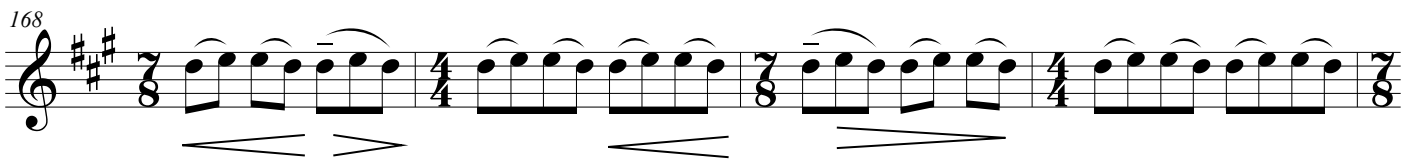
164



164 *mf* *p*

Musical staff 164-167: Treble clef, key signature of two sharps. Continuation of the eighth-note sequence. Dynamic markings *mf* and *p* are present. Time signature changes from 7/8 to 4/4, then back to 7/8, and finally to 4/4.

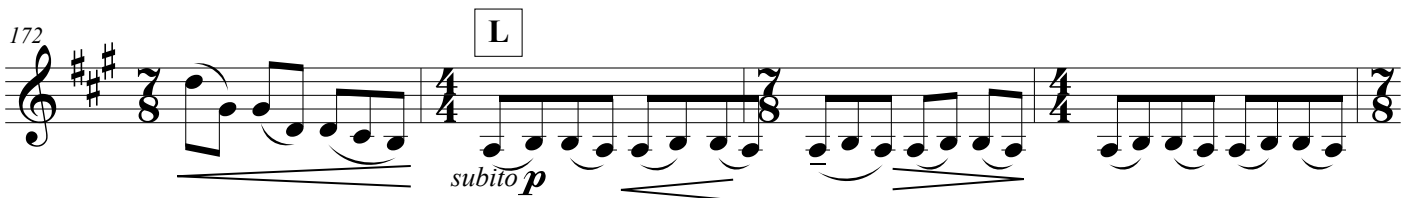
168



Musical staff 168-171: Treble clef, key signature of two sharps. Continuation of the eighth-note sequence with slurs and dynamic markings. Time signature changes from 7/8 to 4/4, then back to 7/8, and finally to 4/4.

172

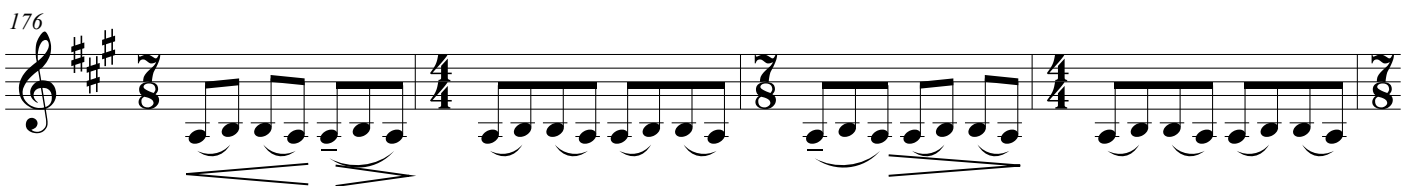
L



172 *subito p*

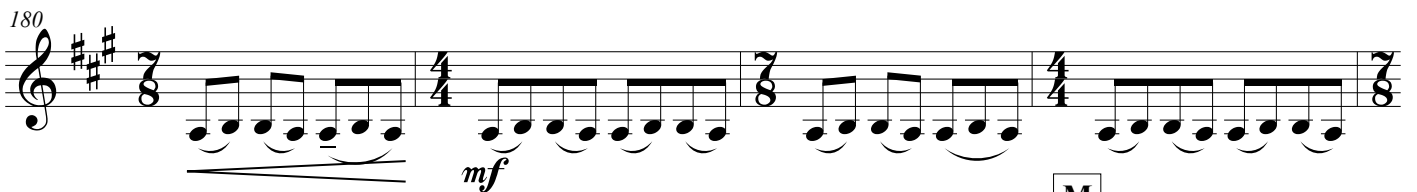
Musical staff 172-175: Treble clef, key signature of two sharps. A box labeled 'L' is above the staff. The music transitions to a sequence of quarter notes. Dynamic marking *subito p* is present. Time signature changes from 7/8 to 4/4, then back to 7/8, and finally to 4/4.

176



Musical staff 176-179: Treble clef, key signature of two sharps. Continuation of the quarter-note sequence with slurs and dynamic markings. Time signature changes from 7/8 to 4/4, then back to 7/8, and finally to 4/4.

180

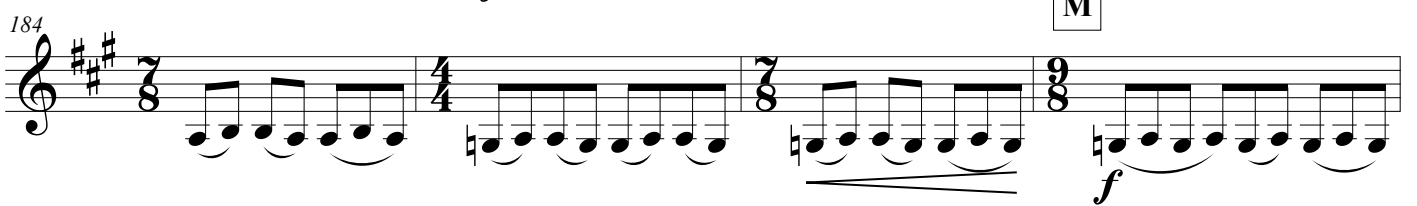


180 *mf*

Musical staff 180-183: Treble clef, key signature of two sharps. Continuation of the quarter-note sequence. Dynamic marking *mf* is present. Time signature changes from 7/8 to 4/4, then back to 7/8, and finally to 4/4.

184

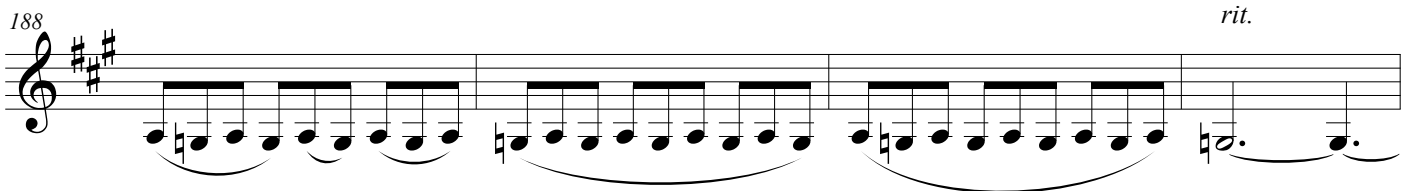
M



184 *f*

Musical staff 184-187: Treble clef, key signature of two sharps. A box labeled 'M' is above the staff. The music transitions to a sequence of quarter notes. Dynamic marking *f* is present. Time signature changes from 7/8 to 4/4, then back to 7/8, and finally to 9/8.

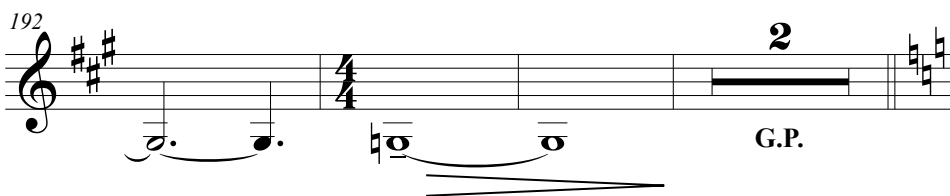
188



188 *rit.*

Musical staff 188-191: Treble clef, key signature of two sharps. Continuation of the quarter-note sequence. Dynamic marking *rit.* is present. Time signature changes from 9/8 to 4/4, then back to 9/8, and finally to 4/4.

192



192 *G.P.*

Musical staff 192-195: Treble clef, key signature of two sharps. Continuation of the quarter-note sequence. A box labeled 'G.P.' is below the staff. Time signature changes from 4/4 to 2/4.

5 **N**

Misterioso ♩ = c. 58

Refractions - Violin 2

197 *sul G sul tasto*

197 *ppp*

Musical staff 197-200: Treble clef, 7/8 time signature. The music consists of a continuous sequence of eighth notes, many of which are beamed in groups of three (triplets). The dynamics are marked *ppp* (pianississimo).

200

Musical staff 200-203: Continuation of the eighth-note triplet pattern from the previous staff.

203

Musical staff 203-206: Continuation of the eighth-note triplet pattern.

206

Musical staff 206-209: Continuation of the eighth-note triplet pattern.

209

Musical staff 209-212: Continuation of the eighth-note triplet pattern.

212

Musical staff 212-215: Continuation of the eighth-note triplet pattern.

215 **O** *ord.* *p* *poco accel.*

Musical staff 215-218: Marked **O** and *ord.* (ordinario). The music changes to a more melodic line with eighth notes and triplets. Dynamics range from *p* to *poco accel.*

218 **Poco più mosso** ♩ = c. 68 *poco a poco accelerando* *pp cresc.* *mf cresc.*

Musical staff 218-222: Marked **Poco più mosso** with a tempo of ♩ = c. 68 and *poco a poco accelerando*. The music features eighth-note triplets. Dynamics include *pp cresc.* and *mf cresc.*

222 *f cresc.* *ff cresc.*

Musical staff 222-226: Continuation of the eighth-note triplet pattern with increasing dynamics, marked *f cresc.* and *ff cresc.*

226 ♩ = c. 88 *accel.* **P** ♩ = c. 74 (V) *fff* *ff*

Musical staff 226-230: Marked with a tempo of ♩ = c. 88 and *accel.* (accelerando). The music features eighth-note triplets. Dynamics include *fff* and *ff*. A box labeled **P** with ♩ = c. 74 (V) is positioned above the staff.

230 (V) *p*

Musical staff 230-233: The music slows down significantly, marked with a tempo of ♩ = c. 74 (V) and *p* (piano). It consists of long, sustained notes, some of which are beamed in groups of three.

Refractions - Violin 2

238 *rit.* Q **Flowing** ♩ = c. 90

ppp p

Musical staff 238-243: Treble clef, key signature of two sharps (F# and C#). Measure 238 starts with a whole note chord (F#4, C#5) marked *ppp*. The piece begins in 5/4 time, then changes to 4/4, 3/8, 4/4, and 3/8. The melody is marked *p* and features a slur over measures 241-243.

244

Musical staff 244-247: Continuation of the melody from the previous staff, maintaining the same time signatures and dynamics.

248

Musical staff 248-251: Continuation of the melody, with time signatures 4/4, 3/8, 4/4, and 3/8.

252 *rit.* R *8va*

252 *rit.* R *8va*

Musical staff 252-255: Continuation of the melody, marked *rit.* and *8va*. Measure 252 has a dynamic marking *f*. The piece changes to 5/4 time in measure 253, then back to 4/4 and 3/8. The final measure is marked *p* with an accent (>).

256

256

Musical staff 256-260: Continuation of the melody, marked *f* in measure 256 and *p* in measure 258. The piece changes to 3/8, 4/4, 3/8, 4/4, 3/8, and 4/4 time signatures.

S **Grazioso** ♩ = c. 64

S **Grazioso** ♩ = c. 64

Musical staff 261-265: New section starting in 4/4 time, marked *pp*. The melody is slower and more lyrical.

266 *rit.* T **Presto** ♩ = c. 130

266 *rit.* T **Presto** ♩ = c. 130

Musical staff 266-270: New section starting in 5/4 time, marked *rit.* and *mf*. The tempo is significantly faster.

271

271

Musical staff 271-276: Continuation of the *Presto* section, marked *f*. Time signatures include 4/4, 2/4, 5/4, and 4/4.

275

275

Musical staff 275-278: Continuation of the *Presto* section, marked *f*. Time signatures include 4/4, 3/8, 4/4, 3/8, and 4/4.

279 U

279 U

Musical staff 279-283: Continuation of the *Presto* section, marked *ff*. The piece changes to 4/4 time. Dynamic markings include *ffz* and *sffz*.

V **Grazioso** ♩ = c. 64

V **Grazioso** ♩ = c. 64

Musical staff 284-288: New section starting in 4/4 time, marked *p*. The tempo returns to the *Grazioso* section. The piece ends with a fermata on a whole note chord.

Viola

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Viola

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p

4

f

8

p

12

f *p*

18

A

f

23

p *f* *p*

27

B

pizz.

f *pp*

32

arco

p

Refractions - Viola

38 *pizz.* **C** *arco*

42

46

49

53

D

60

E Vln. 1, vln 2: *pizz.*

64

3
73 **F** *Grazioso* $\text{♩} = \text{c. } 64$ Refractions - Viola
arco (V)
pp

81
mf pp mf

86 **G**
p mf p

91
ff p

97
sfz subito p ppp

103 **H** *Flowing* $\text{♩} = \text{c. } 90$
p

107
f p

111

115
f p

121 **I**
f p f

126
p f

131 **J** *poco meno mosso* $\text{♩} = \text{c. } 84$ (V)
f p f p f

Refractions - Viola

138

Musical staff 138-145: Bass clef, key signature of two sharps (F# and C#). Measures 138-145 show a melodic line with notes G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, D4, E4, F4, G4, A4, B4, C5. Dynamics include *p* and *f*. A *rit.* marking is present above measure 145.

146

Musical staff 146-151: Treble clef, key signature of two sharps. Measures 146-151 show a melodic line with notes G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. Dynamics include *f*, *p*, and *rit.*. A box labeled 'K' is present above measure 151. The tempo marking *Con moto* and a quarter note equal to approximately 94 (♩ = c. 94) are indicated.

152

Musical staff 152-155: Bass clef, key signature of two sharps. Measures 152-155 show a rhythmic pattern of eighth notes. Dynamics include *f*, *p*, *ppp*, and *p*. The marking *leggero* is present above measure 155.

156

Musical staff 156-159: Bass clef, key signature of two sharps. Measures 156-159 show a rhythmic pattern of eighth notes. Dynamics include *pp*.

160

Musical staff 160-163: Bass clef, key signature of two sharps. Measures 160-163 show a rhythmic pattern of eighth notes.

164

Musical staff 164-167: Bass clef, key signature of two sharps. Measures 164-167 show a rhythmic pattern of eighth notes. Dynamics include *mf* and *p*.

168

Musical staff 168-171: Bass clef, key signature of two sharps. Measures 168-171 show a rhythmic pattern of eighth notes.

172

Musical staff 172-175: Bass clef, key signature of two sharps. Measures 172-175 show a rhythmic pattern of eighth notes. A box labeled 'L' is present above measure 172. Dynamics include *subito p*.

176

Musical staff 176-179: Bass clef, key signature of two sharps. Measures 176-179 show a rhythmic pattern of eighth notes.

180

Musical staff 180-183: Bass clef, key signature of two sharps. Measures 180-183 show a rhythmic pattern of eighth notes. Dynamics include *mf*.

184

Musical staff 184-187: Bass clef, key signature of two sharps. Measures 184-187 show a rhythmic pattern of eighth notes. A box labeled 'M' is present above measure 184. Dynamics include *f*.

188

Musical staff 188-191: Bass clef, key signature of two sharps. Measures 188-191 show a rhythmic pattern of eighth notes. Dynamics include *rit.* and *f*.

192

Musical staff 192-195: Bass clef, key signature of two sharps. Measures 192-195 show a rhythmic pattern of eighth notes. A box labeled '2' is present above measure 192. The marking *G.P.* is present below measure 195.

N 5 *Misterioso* ♩ = c. 58 Refractions - Viola

197 *sul C sul tasto*
ppp

Musical staff 197-200: Bass clef, 3/4 time signature. The staff contains a sequence of eighth notes with triplets indicated by a '3' and a bracket above the notes. The notes are: G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7, D7, E7, F7, G7, A7, B7, C8, D8, E8, F8, G8, A8, B8, C9, D9, E9, F9, G9, A9, B9, C10, D10, E10, F10, G10, A10, B10, C11, D11, E11, F11, G11, A11, B11, C12, D12, E12, F12, G12, A12, B12, C13, D13, E13, F13, G13, A13, B13, C14, D14, E14, F14, G14, A14, B14, C15, D15, E15, F15, G15, A15, B15, C16, D16, E16, F16, G16, A16, B16, C17, D17, E17, F17, G17, A17, B17, C18, D18, E18, F18, G18, A18, B18, C19, D19, E19, F19, G19, A19, B19, C20, D20, E20, F20, G20, A20, B20, C21, D21, E21, F21, G21, A21, B21, C22, D22, E22, F22, G22, A22, B22, C23, D23, E23, F23, G23, A23, B23, C24, D24, E24, F24, G24, A24, B24, C25, D25, E25, F25, G25, A25, B25, C26, D26, E26, F26, G26, A26, B26, C27, D27, E27, F27, G27, A27, B27, C28, D28, E28, F28, G28, A28, B28, C29, D29, E29, F29, G29, A29, B29, C30, D30, E30, F30, G30, A30, B30, C31, D31, E31, F31, G31, A31, B31, C32, D32, E32, F32, G32, A32, B32, C33, D33, E33, F33, G33, A33, B33, C34, D34, E34, F34, G34, A34, B34, C35, D35, E35, F35, G35, A35, B35, C36, D36, E36, F36, G36, A36, B36, C37, D37, E37, F37, G37, A37, B37, C38, D38, E38, F38, G38, A38, B38, C39, D39, E39, F39, G39, A39, B39, C40, D40, E40, F40, G40, A40, B40, C41, D41, E41, F41, G41, A41, B41, C42, D42, E42, F42, G42, A42, B42, C43, D43, E43, F43, G43, A43, B43, C44, D44, E44, F44, G44, A44, B44, C45, D45, E45, F45, G45, A45, B45, C46, D46, E46, F46, G46, A46, B46, C47, D47, E47, F47, G47, A47, B47, C48, D48, E48, F48, G48, A48, B48, C49, D49, E49, F49, G49, A49, B49, C50, D50, E50, F50, G50, A50, B50, C51, D51, E51, F51, G51, A51, B51, C52, D52, E52, F52, G52, A52, B52, C53, D53, E53, F53, G53, A53, B53, C54, D54, E54, F54, G54, A54, B54, C55, D55, E55, F55, G55, A55, B55, C56, D56, E56, F56, G56, A56, B56, C57, D57, E57, F57, G57, A57, B57, C58, D58, E58, F58, G58, A58, B58, C59, D59, E59, F59, G59, A59, B59, C60, D60, E60, F60, G60, 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F233, G233, A233, B233, C234, D234, E234, F234, G234, A234, B234, C235, D235, E235, F235, G235, A235, B235, C236, D236, E236, F236, G236, A236, B236, C237, D237, E237, F237, G237, A237, B237, C238, D238, E238, F238, G238, A238, B238, C239, D239, E239, F239, G239, A239, B239, C240, D240, E240, F240, G240, A240, B240, C241, D241, E241, F241, G241, A241, B241, C242, D242, E242, F242, G242, A242, B242, C243, D243, E243, F243, G243, A243, B243, C244, D244, E244, F244, G244, A244, B244, C245, D245, E245, F245, G245, A245, B245, C246, D246, E246, F246, G246, A246, B246, C247, D247, E247, F247, G247, A247, B247, C248, D248, E248, F248, G248, A248, B248, C249, D249, E249, F249, G249, A249, B249, C250, D250, E250, F250, G250, A250, B250, C251, D251, E251, F251, G251, A251, B251, C252, D252, E252, F252, G252, A252, B252, C253, D253, E253, F253, G253, A253, B253, C254, D254, E254, F254, G254, A254, B254, C255, D255, E255, F255, G255, A255, B255, C256, D256, E256, F256, G256, A256, B256, C257, 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G304, A304, B304, C305, D305, E305, F305, G305, A305, B305, C306, D306, E306, F306, G306, A306, B306, C307, D307, E307, F307, G307, A307, B307, C308, D308, E308, F308, G308, A308, B308, C309, D309, E309, F309, G309, A309, B309, C310, D310, E310, F310, G310, A310, B310, C311, D311, E311, F311, G311, A311, B311, C312, D312, E312, F312, G312, A312, B312, C313, D313, E313, F313, G313, A313, B313, C314, D314, E314, F314, G314, A314, B314, C315, D315, E315, F315, G315, A315, B315, C316, D316, E316, F316, G316, A316, B316, C317, D317, E317, F317, G317, A317, B317, C318, D318, E318, F318, G318, A318, B318, C319, D319, E319, F319, G319, A319, B319, C320, D320, E320, F320, G320, A320, B320, C321, D321, E321, F321, G321, A321, B321, C322, D322, E322, F322, G322, A322, B322, C323, D323, E323, F323, G323, A323, B323, C324, D324, E324, F324, G324, A324, B324, C325, D325, E325, F325, G325, A325, B325, C326, D326, E326, F326, G326, A326, B326, C327, D327, E327, F327, G327, A327, B327, C328, D328, E328, F328, G328, A328, B328, C329, D329, E329, F329, G329, A329, B329, C330, D330, E330, F330, G330, A330, B330, C331, D331, E331, F331, G331, A331, B331, C332, D332, E332, F332, G332, A332, B332, C333, D333, E333, F333, G333, A333, B333, C334, D334, E334, F334, G334, A334, B334, C335, D335, E335, F335, G335, A335, B335, C336, D336, E336, F336, G336, A336, B336, C337, D337, E337, F337, G337, A337, B337, C338, D338, E338, F338, G338, A338, B338, C339, D339, E339, F339, G339, A339, B339, C340, D340, E340, F340, G340, A340, B340, C341, D341, E341, F341, G341, A341, B341, C342, D342, E342, F342, G342, A342, B342, C343, D343, E343, F343, G343, A343, B343, C344, D344, E344, F344, G344, A344, B344, C345, D345, E345, F345, G345, A345, B345, C346, D346, E346, F346, G346, A346, B346, C347, D347, E347, F347, G347, A347, B347, C348, D348, E348, F348, G348, A348, B348, C349, D349, E349, F349, G349, A349, B349, C350, D350, E350, F350, G350, A350, B350, C351, D351, E351, F351, G351, A351, B351, 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Q Flowing $\text{♩} = c. 90$

240 *p* *p*

244

248

252 **R** *f* *p* *f*

256 *p* *f*

S Grazioso $\text{♩} = c. 64$
arco (V) *rit.*

261 *pp*

T Presto $\text{♩} = c. 130$

267 *mf*

271 *f*

275

U 279 *ff* *sffz* *sffz*

V Grazioso $\text{♩} = c. 64$ 283 *sffz* *sffz* *p* *pizz.* *pp*

Cello

Refractions

for string quartet

Tom Lane

Commissioned in 2021 by the Banbha Quartet with an Arts Council of Ireland Commissioning Award.
First performed 21st of September 2022.

Duration: Approximately 12 minutes

Programme note:

The title “Refractions” refers in part to the kaleidoscopic harmony of the piece's musical material – rotating clashing major thirds whose close proximity create colourful contrast. This material is then continuously refracted using various techniques to create alternating sections which explore the potential of this rich musical content. Structurally, the piece continuously returns to the musical material of the opening in a quasi-rondo form. The intervening passages develop different characteristics of the opening material until an extended melodic passage is reached about two thirds of the way through the piece. A densely chromatic rising section builds tension before returning to a reimagined version of the music from the beginning of the piece.

Performance notes:

All bowings are suggestions only and may be changed as necessary.

Multiple bow strokes should be used for any long notes, particularly when volume is required.

Tempos are flexible and may be varied as desired.

Stems marked with three strokes should be played as unmeasured *tremolo*.

Cello

Refractions

for String Quartet

Tom Lane
January - July 2022

Flowing ♩ = c. 90

4

8

11

15

22 **A**

26 **B**
pizz.

31

36

Musical staff 36-39. Measure 36: Bass clef, key signature of two sharps (F# and C#), 4/4 time signature. Measure 37: 3/4 time signature. Measure 38: 3/8 time signature. Measure 39: 5/4 time signature. Dynamics: *f* (forte) in measure 38, *p* (piano) in measure 39. Performance instruction: *arco* (arco) above the staff in measure 39.

40

Musical staff 40-43. Measures 40-43: Bass clef, key signature of two sharps, 4/4 time signature. Dynamics: *f* (forte) in measure 41, *p* (piano) in measure 42.

44

Musical staff 44-46. Measures 44-46: Bass clef, key signature of two sharps, 4/4 time signature. Dynamics: *f* (forte) in measure 45, *p* (piano) in measure 46.

47

Musical staff 47-50. Measures 47-50: Bass clef, key signature of two sharps, 4/4 time signature. Dynamics: *f* (forte) in measure 48, *p* (piano) in measure 49.

51

Musical staff 51-55. Measures 51-55: Bass clef, key signature of two sharps, 4/4 time signature. Dynamics: *f* (forte) in measure 52, *p* (piano) in measure 53.

56

Musical staff 56-60. Measures 56-60: Bass clef, key signature of two sharps, 4/4 time signature. Dynamics: *f* (forte) in measure 59. Performance instruction: **D** (D) above the staff in measure 57.

61

Musical staff 61-64. Measures 61-64: Bass clef, key signature of two sharps, 4/4 time signature. Dynamics: *p* (piano) in measure 61, *f* (forte) in measure 62.

65

Musical staff 65-68. Measures 65-68: Bass clef, key signature of two sharps, 4/4 time signature. Dynamics: *f* (forte) in measure 66, *sfz* (sforzando) in measure 68. Performance instruction: **E** (E) above the staff in measure 65. Additional instruction: *Vln. 1, vln 2:* 4 (quadruple) above the staff in measure 67, *pizz.* (pizzicato) above the staff in measure 68.

3
73

F

Grazioso $\text{♩} = \text{c. } 64$
arco

Refractions - Cello

(V)

pp

mf pp mf

p mf p

ff p

sfz subito p ppp

p

f

p

f

p

f p f

f p

f p

J poco meno mosso

$\text{♩} = \text{c. } 84$ (V)

Refractions - Cello

140

f > *p* *Con moto* *f* > *p*

147

ppp *p* *f* > *p* *leggiere*

153

157

161

165

mf *p*

169

173

subito p *mf*

178

mf

183

f

188

191

rit.

2

G.P.

N *Misterioso*

197 $\text{♩} = \text{c. } 58$ *2* *sul tasto*

204

208

212

217 *poco accel.* *Poco più mosso* $\text{♩} = \text{c. } 68$

220 *poco a poco accelerando*

223

227 $\text{♩} = \text{c. } 88$ *accel.* $\text{♩} = \text{c. } 74$ **P** (V)

233 (V) *rit.*

240 **Q** *Flowing* $\text{♩} = \text{c. } 90$

243

Musical staff 243-246: Bass clef, key signature of two sharps (F# and C#). Measures 243-246. Dynamics: *p*. Time signatures: 4/4, 3/8, 4/4, 2/4, 5/4.

247

Musical staff 247-249: Bass clef, key signature of two sharps. Measures 247-249. Dynamics: *p*. Time signatures: 5/4, 4/4, 3/8, 4/4.

250

Musical staff 250-253: Bass clef, key signature of two sharps. Measures 250-253. Dynamics: *p*. Time signatures: 4/4, 3/8, 4/4, 2/4, 5/4.

R

254

Musical staff 254-257: Bass clef, key signature of two sharps. Measures 254-257. Dynamics: *f*, *p*, *f*, *p*. Time signatures: 5/4, 4/4, 3/8, 4/4, 3/8.

258

Musical staff 258-262: Bass clef, key signature of two sharps. Measures 258-262. Dynamics: *f*, *pp*. Time signatures: 3/8, 4/4, 5/4, 4/4. Includes a treble clef staff for a vocal line. Markings: **S** *Grazioso* ♩ = c. 64 (V).

263

Musical staff 263-266: Bass clef, key signature of two sharps. Measures 263-266. Dynamics: *f*. Time signatures: 5/4, 4/4, 3/8, 5/4.

T

267

Presto ♩ = c. 130

Musical staff 267-270: Bass clef, key signature of two sharps. Measures 267-270. Dynamics: *mf*. Time signatures: 5/4, 4/4, 3/8, 4/4.

270

Musical staff 270-273: Bass clef, key signature of two sharps. Measures 270-273. Dynamics: *mf*. Time signatures: 4/4, 3/8, 4/4, 2/4, 5/4.

274

Musical staff 274-276: Bass clef, key signature of two sharps. Measures 274-276. Dynamics: *f*. Time signatures: 5/4, 4/4, 3/8, 4/4.

277

Musical staff 277-280: Bass clef, key signature of two sharps. Measures 277-280. Dynamics: *f*. Time signatures: 4/4, 3/8, 4/4, 2/4, 4/4.

U

281

V *Grazioso* ♩ = c. 64

Musical staff 281-286: Bass clef, key signature of two sharps. Measures 281-286. Dynamics: *sfz*, *p*. Time signatures: 4/4, 4/4, 4/4, 4/4, 4/4. Includes a treble clef staff for a vocal line.

287

Musical staff 287: Treble clef, key signature of two sharps. Measure 287. Dynamics: *pp*. Marking: *pizz.*