



Hidden Dimensions

By Michael Hopkins

— INSTRUMENTATION —

- 1 Conductor
- 8 1st Violin
- 8 2nd Violin
- 5 Viola
- 5 Cello
- 5 String Bass

Explore the hidden dimensions of spacetime and string theory with multiple meters! Great for a cross-curricular experience with the science class.

PROGRAM NOTES

Hidden Dimensions was commissioned by Tricia Laux for the Dickerson Middle School 8th Grade Sinfonia in Cobb County, Marietta, Georgia. There is a string theory in physics named M-Theory that suggests spacetime contains eleven dimensions. Most of these dimensions are compacted, hidden, and undetectable by human experiments. This piece is a musical exploration of these hidden dimensions—a journey through spacetime! Through the use of multiple meters, the phrases are of lengths that represent all the different dimensions.

NOTES TO THE CONDUCTOR

The opening should be played in a legato style. The *Allegro* should be played in a rhythmic and detached style. The $\frac{7}{4}$ meter should always be conducted 3 + 2. The $\frac{9}{8}$ section should be conducted 4 (2 + 2 + 2 + 3). In m. 134, the tremolo should terminate on beat 4 with a clean bow lift. In m. 140, the high strings should slowly gliss down whatever string they are on and release together on the final beat of the measure.

NOTE FROM THE EDITOR

All Belwin string parts have been carefully bowed and fingered appropriately by level. The Yellow Very Beginning series includes many bowings as well as reminder fingerings for first-time readers. The Red Beginning series includes frequent bowings to assist younger players. Fingerings for altered pitches are often marked. The Green Intermediate series includes appropriately placed bowings for middle-level students. Fingerings and positions are marked for notes beyond first position. The Blue Concert series includes bowings appropriate for the experienced high school player. Fingerings and position markings are indicated for difficult passages.


Belwin/Pop String Editor

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CONDUCTOR SCORE

By Michael Hopkins

Duration - 5:45

Adagio (♩ = 50)

Violins

Violins I
Violins II
Viola
Cello
String Bass

p 1 2 3 4

Solo Vlns.

3 Violin Soloists
1
2
3
Section
I
II
Vlns.
Vla.
Cello
Str. Bass

p *mf* *pp* *pp* *pp* *pp*

5 6 7 8

9 **Tutti**

Vlns. I
mf *p*

Vlns. II
mf *p*

Vla.
mf *p*

Cello
mf *p* *mf*

Str. Bass
mf *p* *mf*

9 10 11 12

Vlns. I
f *mp*

Vlns. II
f *mp*

Vla.
f *mp*

Cello
f *div.*

Str. Bass
f

13 14 15 16

19

Vlns. I *p* *pp*

Vlns. II *pp*

Vla. *p* *pp*

Cello *pp* *p*

Str. Bass *p*

17 18 19 20 21

Vlns. I *sfz* *p*

Vlns. II *sfz* *p*

Vla. *sfz* *p*

Cello *f* *mf* *mp*

Str. Bass *f* *mf* *mp*

22 23 24 25 26

27 Allegro (♩ = 132)

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

27 28 29 30

31

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

31 32 33 34

In 4

I Vlns.

II Vlns.

Vla.

Cello

Str. Bass

35 36 37

I Vlns.

II Vlns.

Vla.

Cello

Str. Bass

38 39 40

44

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

p

41 42 43 44

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

mp

mp

mp

mf

mp

mp

mp

45 46 47 48

I
Vlns.

II

Vla.

Cello

Str. Bass

f

49 50 51

I
Vlns.

II

Vla.

Cello

Str. Bass

ff

52 53 54

56

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

f *ff* *ff*

55 56 57 58

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

mp *mp* *mp* *mp*

59 60 61 62

I
Vlns.
II
Vla.
Cello
Str. Bass

ff

63 64 65 66

This musical score block covers measures 63 to 66. It features five staves: Violins I and II, Viola, Cello, and String Bass. The key signature is one sharp (F#) and the time signature is 4/4. Measures 63 and 64 begin with a half rest followed by a dynamic marking of *ff*. Measures 65 and 66 continue with melodic lines in the upper parts and a steady bass line. A large red watermark is overlaid on the score.

I
Vlns.
II
Vla.
Cello
Str. Bass

68

p

67 68 69 70

This musical score block covers measures 67 to 70. It features five staves: Violins I and II, Viola, Cello, and String Bass. The key signature is one sharp (F#) and the time signature is 4/4. Measure 68 is marked with a dynamic of *p*. Measures 69 and 70 show a change in the bass line and the end of the section with a fermata. A large red watermark is overlaid on the score.

Vlns. I
f 73 *marcato*

Vlns. II
f *marcato*

Vla.
f *marcato*

Cello
f

Str. Bass
f

71 72 73

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

74 75 76

I
Vlns.
II
Vla.
Cello
Str. Bass

77 78 79

mf

I
Vlns.
II
Vla.
Cello
Str. Bass

80 81 82 83

ff *dim.*

84

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

p *mp* *mf*

84 85 86 87

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

mp *f*

88 89 90

I Vlns. II Vlns. Vla. Cello Str. Bass

91 92 93

I Vlns. II Vlns. Vla. Cello Str. Bass

94 95 96 97

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

98 99 100 101 102

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

103 104 105 106 107

I Vlns.

II Vlns.

Vla.

Cello

Str. Bass

108 109 110 111 112

113

I Vlns.

II Vlns.

Vla.

Cello

Str. Bass

113 114 115 116

3 Violin Soloists

Solo Vlns. 1 2 3

Vlns. I II

Vla.

Cello first 2 stands only

Str. Bass

ff

ff

ff

Section

sf

pp

117 118 119 120

18

Solo Vlns.

1

2

3

Vlns.

I

II

Vla.

Cello

Str. Bass

pp

pizz.

-3

V

121

122

123

124

125 Tutti

Vlns. I *p* *cresc.*

Vlns. II *p* *cresc.*

Vla. *p* *cresc.*

Cello *Tutti* *p* *arco* *cresc.*

Str. Bass *p* *cresc.*

125 126 127 128 129

Vlns. I *ff* *pp*

Vlns. II *ff* *pp*

Vla. *ff* *pp*

Cello *ff* *pp*

Str. Bass *ff* *pp*

130 131 132 133 134

135

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

f *ff*

135 136 137

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

gliss.

138 139 140

142

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

141 142 143

Vlns. I

Vlns. II

Vla.

Cello

Str. Bass

144 145 146

I Vlns.

II Vlns.

Vla.

Cello

Str. Bass

147 148 149

I Vlns.

II Vlns.

Vla.

Cello

Str. Bass

150 151 152

ff

Vlns.
I
II

Vla.

Cello

Str. Bass

153 154 155

This section of the score covers measures 153, 154, and 155. It features five staves: Violins I and II, Viola, Cello, and String Bass. The key signature is one sharp (F#) and the time signature is 4/4. The music consists of rhythmic patterns with accents and dynamic markings. A large red watermark is overlaid on the page.

Vlns.
I
II

Vla.

Cello

Str. Bass

156 157 158

sfp *ff*

sfp *ff*

sfp *ff*

mf *ff*

mf *ff*

This section of the score covers measures 156, 157, and 158. It features five staves: Violins I and II, Viola, Cello, and String Bass. The key signature is one sharp (F#) and the time signature is 4/4. The music includes dynamic markings such as *sfp* (sforzando piano), *ff* (fortissimo), and *mf* (mezzo-forte). A large red watermark is overlaid on the page.