

Quarks

A Relativistic Romp for Symphony Orchestra

by

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Quarks

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♩ = 120

Flute *ppp* *mp*

Oboe

Clarinet in B \flat

Contrabass Clarinet B \flat

Bassoon

Horn in F I-III *p* *mp* *mf* *pp* *p*

Horn in F II-IV

Trumpet in B \flat

Bass Trombone

Contrabass Tuba

Percussion *mf* snare 3

Timpani *p* *mp*

Piano *pp*

Violin I *pizz.* *p* *mp*

Violin II *pizz.* *p* *mp*

Viola *pizz.* *p* *mp*

Cello *pizz.* *p* *mp*

Double Bass *pizz.* *p* *mp*

Quarks

This musical score is for the piece "Quarks" and is page 2 of the score. It features a variety of instruments and includes dynamic markings and performance instructions.

Instrumentation and Dynamics:

- Flute (Fl.):** Melodic line with dynamics *mp* and *mf*.
- Oboe:** Melodic line with dynamics *mp* and *mf*.
- Clarinet (Clar.):** Melodic line with dynamic *mp*.
- Bassoon (Cb. Cl.):** Melodic line with dynamics *mp* and *mf*.
- Bassoon (Bsn.):** Melodic line with dynamics *mp* and *mf*.
- Horn I-III (Hn. I-III):** Melodic line with dynamics *mp* and *p*.
- Horn II-IV (Hn. II-IV):** Melodic line with dynamic *p*.
- Trumpet (Tpt.):** Melodic line.
- Bass Trombone (B. Tbn.):** Melodic line.
- Contrabass Trombone (Cb. Tuba):** Melodic line.
- Percussion (Perc.):** Includes a triplet with dynamic *mf*.
- Timpani (Timp.):** Includes a triplet with dynamic *mf*.
- Piano (Pno.):** Includes a triplet with dynamic *mf*.
- Violin I (Vln. I):** Melodic line with dynamic *mf*.
- Violin II (Vln. II):** Melodic line with dynamic *mf*.
- Viola (Vla.):** Melodic line with dynamic *mf*.
- Violoncello (Vc.):** Melodic line with dynamic *mf*.
- Double Bass (D.B.):** Melodic line with dynamic *mf*.

Performance Instructions:

- Triplet markings (*3*) are present in the Percussion and Timpani parts.
- A double asterisk (****) is located below the Piano part.
- Dynamic markings (*mp*, *mf*, *p*) are used throughout the score to indicate volume levels.

Quarks

(accel.)

25

Fl. *mf* *pp*

Oboe

Clar. *mf* *pp* *mf*

Cb. Cl.

Bsn.

Hn. I-III *mp* *p* *mp*

Hn. II-IV *mp* *p* *mp*

Tpt. *mp* *p*

B. Tbn.

Cb. Tuba

Perc.

25

25

Timp. *mp* *mp*

25

Pno. *mp*

Vln. I *mf* *mp* *pp*

Vln. II

Vla. *mp* *mf* *pizz.*

Vc. *mp* *mf* *pizz.*

D.B. *mp* *mf* *pizz.*

Quarks

$\text{♩} = 136$ *accel.*

Fl. *ppp* *mp* *mf* *f*

Oboe *pp*

Clar. *pp* *p*

Cb. Cl. *mp*

Bsn.

Hn. I-III *p* *mp*

Hn. II-IV *p*

Tpt.

B. Tbn.

Cb. Tuba

Perc.

Timp. *s*

Pno. *p* *mf* *mp*

Vln. I *pizz.* *mf* *pizz.*

Vln. II *mf* *pizz.*

Vla. *arco* *ppp*

Vc. *arco* *pizz.* *arco* *ppp*

D.B. *arco* *pizz.* *ppp*

Quarks

♩ = 160 ♩ = 144

46

Fl.

Oboe

Clar.

Cb. Cl.

Bsn.

Hn. I-III

Hn. II-IV

Tpt.

B. Tbn.

Cb. Tuba

Perc.

Timp.

Pno.

Vln. I

Vln. II

Vla.

Vc.

D.B.

f

ff

mp

mf

ff

f

ff

f

ff

f

ff

f

ff

f

ff

f

ff

mf

pizz.

p

p

p

Quarks

53 8

Fl. *f* *mf* *f* *mf*

Oboe *mf* *mf*

Clar.

Cb. Cl.

Bsn.

Hn. I-III

Hn. II-IV

Tpt.

B. Tbn. *f* *f*

Cb. Tuba

Perc.

Timp.

Pno. *mp* *mp*

Vln. I

Vln. II *pizz.* *p*

Vla.

Vc.

D.B.

8

This page of the musical score for "Quarks" includes parts for the following instruments:

- Flute (Fl.):** Measures 57-8. Dynamics: *mp*, *mp* (with hairpin), *f*.
- Oboe:** Rests throughout.
- Clarinet (Clar.):** Measures 57-8. Dynamics: *mp*, *mf*.
- Clarinet in B-flat (Cb. Cl.):** Rests until measure 8, then *f*.
- Bassoon (Bsn.):** Rests throughout.
- Horn I-III (Hn. I-III):** Rests until measure 8, then *mf*, *f*.
- Horn II-IV (Hn. II-IV):** Rests until measure 8, then *mf*, *f*.
- Trumpet (Tpt.):** Measure 57: *f*. Measures 57-8: *mp* (with hairpin), *f*.
- Bass Trombone (B. Tbn.):** Measure 57: *f*. Measures 57-8: *f*.
- Contrabass Trombone (Cb. Tuba):** Rests throughout.
- Percussion (Perc.):** Rests throughout.
- Timpani (Timp.):** Rests throughout.
- Piano (Pno.):** Measures 57-8: *p* (with hairpin), *f*.
- Violin I (Vln. I):** Measure 57: *p* (pizzicato). Measures 57-8: *mp*.
- Violin II (Vln. II):** Measures 57-8: *mp*.
- Viola (Vla.):** Measures 57-8: *mp*.
- Violoncello (Vc.):** Measures 57-8: *mp*.
- Double Bass (D.B.):** Measures 57-8: *mp*.

♩ = 136

Musical score for 'Quarks' page 10, measures 62-68. The score includes parts for Flute (Fl.), Oboe, Clarinet (Clar.), Contrabass Clarinet (Cb. Cl.), Bassoon (Bsn.), Horn I-III (Hn. I-III), Horn II-IV (Hn. II-IV), Trumpet (Tpt.), Trombone (B. Tbn.), and Cymbal/Tuba (Cb. Tuba). The Percussion section includes Percussion (Perc.) and Timpani (Timp.). The string section includes Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (D.B.).

Measures 62-68 are marked with a tempo of 136. The score features various dynamics including *mp*, *f*, *mf*, and *mf*. The Percussion and Timpani parts include triplet markings. The Violin II part includes an *arco* marking and a *mf* dynamic. The Double Bass part includes a *mf* dynamic.

This page of the musical score, titled "Quarks", covers measures 70 through 74. The score is arranged in a standard orchestral format with multiple staves for different instruments. The key signature is B-flat major, and the time signature changes from 4/4 to 3/4 at measure 72. The woodwind section (Flute, Oboe, Clarinet, Bassoon) has a melodic line starting in measure 70, marked with a forte (*f*) dynamic and a triplet. The brass section (Trumpet, Trombone, Tuba) plays a rhythmic pattern of eighth notes, marked with a mezzo-forte (*mf*) dynamic. The percussion section features a complex rhythmic pattern in measure 70, marked with a mezzo-piano (*mp*) dynamic, and a fortissimo (*ff*) dynamic in measure 71. The string section (Violin I, Violin II, Viola, Violoncello) plays a melodic line starting in measure 70, marked with a forte (*f*) dynamic. The double bass (D.B.) plays a rhythmic pattern of eighth notes, marked with a mezzo-forte (*mf*) dynamic. The piano (Pno.) and harp (Hn. I-III, Hn. II-IV) parts are mostly silent, with some sustained notes in the horns. The score includes various musical notations such as slurs, accents, and dynamic markings.

Quarks

76 *rit.* $\text{♩} = 90$ $\text{♩} = 126$

Fl.

Oboe

Clar.

Cb. Cl.

Bsn.

Hn. I-III

Hn. II-IV

Tpt.

B. Tbn.

Cb. Tuba

Perc.

Timp.

Pno.

Vln. I

Vln. II

Vla.

Vc.

D.B.

f *mf* *mp* *f*

mp *f*

mf *mp* *sfz* *mp*

mp *f*

mp *f*

mp *f*

mp *f*

mp *f*

This page of the musical score, titled "Quarks", covers measures 84 through 91. The score is arranged in a standard orchestral format with the following parts:

- Flute (Fl.):** Features a melodic line with dynamic markings of *mf*, *f*, *mp*, *p*, and *ppp*. It includes a large slur spanning measures 84-91 and a hairpin crescendo.
- Oboe:** Remains silent throughout this section.
- Clarinet (Clar.):** Plays a melodic line with dynamics *mf* and *ppp*, including a hairpin crescendo.
- Clarinet in B-flat (Cb. Cl.):** Remains silent.
- Bassoon (Bsn.):** Remains silent.
- Horn I-III (Hn. I-III):** Remains silent.
- Horn II-IV (Hn. II-IV):** Remains silent.
- Trumpet (Tpt.):** Remains silent.
- Bass Trombone (B. Tbn.):** Remains silent.
- Contrabass Trombone (Cb. Tuba):** Remains silent.
- Percussion (Perc.):** Remains silent.
- Timpani (Timp.):** Remains silent.
- Piano (Pno.):** Remains silent.
- Violin I (Vln. I):** Features a melodic line with dynamics *pp*, *mp*, *ppp*, and *p*. It includes a large slur and hairpins.
- Violin II (Vln. II):** Features a melodic line with dynamics *pp*, *mp*, and *p*. It includes a large slur and hairpins.
- Viola (Vla.):** Remains silent.
- Violoncello (Vc.):** Features a melodic line with dynamics *mp* and *p*. It includes a large slur and hairpins.
- Double Bass (D.B.):** Features a melodic line with dynamics *mp*, *p*, and *pp*. It includes a large slur and hairpins.

Quarks

This musical score page, numbered 14, is titled "Quarks". It features a variety of instruments and dynamic markings. The instruments listed on the left are Flute (Fl.), Oboe, Clarinet (Clar.), Bassoon (Bsn.), Horns I-III (Hn. I-III), Horns II-IV (Hn. II-IV), Trumpet (Tpt.), Bass Trombone (B. Tbn.), and Tuba (Cb. Tuba). The Percussion (Perc.) part includes a cymbal (ping) and a timpani (Timp.). The Piano (Pno.) part is shown in grand staff notation. The string section includes Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (D.B.).

Key musical elements include:

- Flute (Fl.):** Melodic lines with dynamics *mp*, *ppp*, and *mp*. A slur covers measures 95-100.
- Clarinet (Clar.):** Melodic lines with dynamics *mp*, *ppp*, and *mp*. A slur covers measures 95-100.
- Bassoon (Bsn.):** Features triplet patterns in measures 95-100 with dynamics *pp*, *mf*, and *p*. Slurs are present over these sections.
- Percussion (Perc.):** Includes a cymbal (ping) in measure 95 and dynamic markings *mp* and *f*.
- Piano (Pno.):** Features a melodic line starting in measure 95 with dynamics *p* and *mp*.
- Violin II (Vln. II):** Includes a pizzicato (*pizz.*) section in measure 95 with dynamic *mp*.
- Violin I (Vln. I):** Features a melodic line with dynamics *ppp* and *p*.
- Double Bass (D.B.):** Features a melodic line with dynamic *pp*.

107

Fl. *ppp*

Oboe

Clar. *ppp* *f*

Cb. Cl.

Bsn.

Hn. I-III *ff* mute off *ff* *ff*

Hn. II-IV *ff* *ff*

Tpt. *ff* *ff*

B. Tbn. *ff*

Cb. Tuba *ff*

Perc. *mp* *ff*

Timp.

108

Pno. *f*

Vln. I

Vln. II

Vla.

Vc.

D.B.

Quarks

♩ = 120

110

Fl. *f* <

Oboe

Clar. *f* <

Cb. Cl.

Bsn.

Hn. I-III *ff* *mf* 3

Hn. II-IV *ff* *mf* 3

Tpt. *ff* *mf* 3

B. Tbn. *p*

Cb. Tuba *p*

Perc. *mp* > > *ff* 3 3 3 3 3 3

Timp.

Pno. *f*

Vln. I *ff*

Vln. II *ff* arco

Vla. *ff*

Vc. *ff*

D.B. *ff*

Quarks

accel. _____

This musical score page, numbered 18, is for the piece 'Quarks'. It features a variety of instruments including Flute (Fl.), Oboe, Clarinet (Clar.), Contrabass Clarinet (Cb. Cl.), Bassoon (Bsn.), Horns I-III (Hn. I-III) and II-IV (Hn. II-IV), Trumpet (Tpt.), Baritone Trombone (B. Tbn.), and Cymbal/Tuba (Cb. Tuba). The percussion section includes Percussion (Perc.) and Timpani (Timp.). The string section consists of Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (D.B.).

The score begins at measure 113. The woodwinds (Fl., Oboe, Clar., Cb. Cl., Bsn.) play a complex rhythmic pattern of eighth and sixteenth notes, marked with a forte (*f*) dynamic and a triplet of eighth notes. The strings (Vln. I, Vln. II, Vla., Vc., D.B.) provide a steady accompaniment. The percussion (Perc., Timp.) features a pattern of eighth notes with varying dynamics: *mp*, *p*, *pp*, *p*, and *p*. The PIANO (Pno.) part has a melodic line starting in measure 113, marked with a piano (*p*) dynamic and a mezzo-forte (*mf*) dynamic.

Dynamic markings throughout the score include *f*, *mp*, *p*, *pp*, *mf*, and *mp*. An *accel.* (accelerando) marking is present at the top right of the page. The score concludes with a final measure in measure 118.

Quarks

120 $\text{♩} = 144$ $\text{♩} = 90$ *accel.*

Fl. *mp* *p*

Oboe *mp* *p*

Clar.

Cb. Cl. *mp* *p*

Bsn. *mp* *p*

Hn. I-III

Hn. II-IV

Tpt.

B. Tbn. *mp* *mf*

Cb. Tuba

Perc. *mf* *mp* *p* *mp*

Timp. *p* *mp*

Pno. *mp* *p* *p*

Vln. I *arco*

Vln. II

Vla.

Vc.

D.B. *arco* *mp* *mf*

Quarks

♩ = 144

127

Fl. *mp*

Oboe *p mp*

Clar. *mp mp mf*

Cb. Cl. *mp mf*

Bsn. *p mp mf f*

Hn. I-III *p mf mp p*

Hn. II-IV

Tpt. *f*

B. Tbn. *f*

Cb. Tuba *f*

Perc. *mp mf mp p p*

Timp.

Pno. *p mf f* *Glas*

Vln. I *arco ppp ff*

Vln. II *arco ppp p mp mf*

Vla. *arco ppp mp mf*

Vc. *pizz.*

D.B. *mp mf*

This page of the musical score, titled "Quarks", covers measures 134 through 138. The score is arranged in a standard orchestral format with the following parts and staves:

- Flute (Fl.):** Measures 134-138. Starts with a *ppp* dynamic and a long breath mark. A *fff* dynamic appears in measure 135.
- Oboe:** Measures 134-138. Remains silent.
- Clarinet (Clar.):** Measures 134-138. Starts with a *ppp* dynamic and a long breath mark. Dynamics include *fff* and *f*.
- Clarinet in Bass (Cb. Cl.):** Measures 134-138. Remains silent.
- Bassoon (Bsn.):** Measures 134-138. Remains silent.
- Horn I-III (Hn. I-III):** Measures 134-138. Features triplets in measures 135 and 138, with a *ff* dynamic.
- Horn II-IV (Hn. II-IV):** Measures 134-138. Features triplets in measures 135 and 138, with a *ff* dynamic.
- Trumpet (Tpt.):** Measures 134-138. Features a quintuplet in measure 135 and triplets in measures 135 and 138, with a *ff* dynamic.
- Bass Trombone (B. Tbn.):** Measures 134-138. Features a *ff* dynamic in measure 138.
- Contrabass Trombone (Cb. Tuba):** Measures 134-138. Features a *ff* dynamic in measure 138.
- Percussion (Perc.):** Measures 134-138. Features a complex rhythmic pattern with triplets and a *mp* dynamic.
- Timpani (Timp.):** Measures 134-138. Features a *fff* dynamic in measure 138.
- Piano (Pno.):** Measures 134-138. Features a *ff* dynamic in measure 134 and a *f* dynamic in measure 135.
- Violin I (Vln. I):** Measures 134-138. Features a *ff* dynamic in measure 134.
- Violin II (Vln. II):** Measures 134-138. Features a *ff* dynamic in measure 134.
- Viola (Vla.):** Measures 134-138. Remains silent.
- Violoncello (Vc.):** Measures 134-138. Remains silent.
- Double Bass (D.B.):** Measures 134-138. Features a *ff* dynamic in measure 134.

Musical score for 'Quarks' page 23, measures 141-146. The score includes parts for Flute (Fl.), Oboe, Clarinet (Clar.), Contrabass Clarinet (Cb. Cl.), Bassoon (Bsn.), Horn I-III (Hn. I-III), Horn II-IV (Hn. II-IV), Trumpet (Tpt.), Trombone (B. Tbn.), and Cymbal/Tuba (Cb. Tuba). The Percussion section includes Percussion (Perc.) and Timpani (Timp.). The Piano (Pno.) part is shown in grand staff notation. The string section includes Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (D.B.).

Measures 141-146 contain the following musical details:

- Fl.:** Rests in all measures.
- Oboe:** Rests in all measures.
- Clar.:** Rests in all measures.
- Cb. Cl.:** Rests in all measures.
- Bsn.:** Rests in all measures.
- Hn. I-III:** Measure 141: Rest. Measure 142: Triplet of eighth notes (Bb, Ab, Gb) marked *ff*. Measure 143: Rest. Measure 144: Rest. Measure 145: Rest. Measure 146: Rest.
- Hn. II-IV:** Measure 141: Rest. Measure 142: Triplet of eighth notes (Bb, Ab, Gb) marked *ff*. Measure 143: Rest. Measure 144: Rest. Measure 145: Rest. Measure 146: Rest.
- Tpt.:** Measure 141: Rest. Measure 142: Triplet of eighth notes (Bb, Ab, Gb) marked *ff*. Measure 143: Rest. Measure 144: Rest. Measure 145: Triplet of eighth notes (Bb, Ab, Gb) marked *f*. Measure 146: Triplet of eighth notes (Bb, Ab, Gb) marked *f*.
- B. Tbn.:** Measure 141: Quarter note (Bb). Measure 142: Quarter note (Ab). Measure 143: Quarter note (Gb). Measure 144: Quarter note (F). Measure 145: Quarter note (E). Measure 146: Quarter note (D).
- Cb. Tuba:** Measure 141: Quarter note (Bb). Measure 142: Quarter note (Ab). Measure 143: Quarter note (Gb). Measure 144: Quarter note (F). Measure 145: Quarter note (E). Measure 146: Quarter note (D).
- Perc.:** Measure 141: Rest. Measure 142: Rest. Measure 143: Rest. Measure 144: Rest. Measure 145: Rest. Measure 146: Rest. Annotations: "let ring" above measure 145, "large gong" below measure 145.
- Timp.:** Measure 141: Triplet of eighth notes (Bb, Ab, Gb). Measure 142: Triplet of eighth notes (Bb, Ab, Gb). Measure 143: Triplet of eighth notes (Bb, Ab, Gb). Measure 144: Triplet of eighth notes (Bb, Ab, Gb). Measure 145: Triplet of eighth notes (Bb, Ab, Gb). Measure 146: Triplet of eighth notes (Bb, Ab, Gb) marked *ff*.
- Pno.:** Measure 141: Complex chordal texture. Measure 142: Complex chordal texture. Measure 143: Complex chordal texture. Measure 144: Complex chordal texture. Measure 145: Complex chordal texture. Measure 146: Complex chordal texture. Annotations: "Xoo" above measure 141, "*" below measure 145.
- Vln. I:** Rests in all measures.
- Vln. II:** Rests in all measures.
- Vla.:** Rests in all measures.
- Vc.:** Rests in all measures.
- D.B.:** Rests in all measures.

147

Fl.

Oboe

Clar.

Cb. Cl.

Bsn.

Hn. I-III

Hn. II-IV

Tpt.

B. Tbn.

Cb. Tuba

Perc.

Timp.

Pno.

Vln. I

Vln. II

Vla.

Vc.

D.B.

mf

f

ppp

mf

3

6

