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CAIMMI

LA TECNICA SUPERIORE DEL CONTRABBASSO

20 STUDI

TECHNIQUE SUPERIEURE DE LA CONTREBASSE
20 Études

ADVANCED TECHNIQUE OF THE DOUBLE-BASS
20 Studies

DIE HÖHERE TECHNIK DES KONTRABASSES
20 Studien

LA TECNICA SUPERIOR DEL CONTRABAJO
20 Estudios

RICORDI

E.R. 415

ITALO CAIMMI

LA TECNICA SUPE- RIORE DEL CON- TRABBASSO.

I presenti studi sono difficili, però non inesiguibili, come a molti possono sembrare. Certo, essi sono accessibili solo a coloro che sul Contrabbasso hanno fatto uno studio serio, regolare e sotto ottima guida. È da osservarsi, innanzi tutto, che lo strumento deve essere perfettamente in ordine, come lo richiede un Contrabbasso per solista. È bene, per quanto riguarda la sistemazione di questo, specie in ciò che maggiormente interessa (manico, tastiera, ponticello) affidarsi ad un bravo liutaio. Allo studioso, poi, si raccomanda la scelta delle corde, le quali, oltre ad essere di quelle usate da un solista, devono essere ben proporzionate tra loro. Sistemato il Contrabbasso accuratamente nei suoi particolari più minimi, lo studioso ricaverà facile, nitida, su qualunque corda, l'esecuzione del capotasto.

ITALO CAIMMI.

LA TECHNIQUE SU- PÉRIEURE DE LA CONTREBASSE.

Les études que nous présentons ici sont d'une exécution difficile, mais non impossible comme quelques-uns pourraient le croire. Certes, elles ne sont accessibles qu'aux contrebassistes qui ont déjà fait de leur instrument une étude sérieuse et régulière sous un bon maître. Répétons, tout d'abord, que l'instrument doit être dans l'ordre parfait que requiert une Contrebasse pour soliste, et il convient, pour ce qui regarde cette mise en état et surtout les points les plus importants (manche, touche, chevalet), de s'en remettre à un luthier habile. Nous recommandons aussi le choix des cordes, lesquelles non seulement doivent être celles à l'usage des solistes, mais doivent posséder entre elles une rigoureuse proportion. Une fois l'instrument mis au point jusqu'en ses moindres détails, il répondra avec aisance et clarté, sur toutes ses cordes, à l'exécution du capotasto.

ADVANCED TECH- NICS OF THE DOU- BLE-BASS.

These studies are difficult, but not impossible to play, as they might seem to many. It is true, they are only possible for those who have studied the double-bass seriously, regularly and under the best tuition. Above all, it is essential that the instrument should be in perfect condition, to satisfy the requirements of a soloist. With regard to the regulation of any specific parts (the neck, fingerboard and the bridge) it is well to rely on a good manufacturer. The student should further be careful in the choice of his strings which, besides being suitable for solo work, must be in correct proportion to one another. With his instrument accurately regulated in its most minute details, the student will effect an easy and brilliant execution of the thumb position on any string.

**PROSPETTO
DEI SUONI ARMONICI
AL PONTICELLO
E DITEGGIATURA**

**TABLEAU
DES SONS HARMONIQUES
AU CHEVALET
ET DOIGTE**

**TABLE
OF HARMONICS
TOWARDS THE BRIDGE
WITH FINGERING**

I. Corda
I. Corde
I. String
II. Corda
II. Corde
II. String
III. Corda
III. Corde
III. String
IV. Corda
IV. Corde
IV. String

**PROSPETTO
DEI SUONI ARMONICI
SUL MANICO
E DITEGGIATURA**

**TABLEAU
DES SONS HARMONIQUES
SUR LE MANCHE
ET DOIGTE**

**TABLE
OF HARMONICS
IN THE LOWER POSITIONS,
WITH FINGERING**

I. Corda
I. Corde
I. String
II. Corda
II. Corde
II. String
III. Corda
III. Corde
III. String
IV. Corda
IV. Corde
IV. String

II. Corda
II. Corde
II. String
III. Corda
III. Corde
III. String
IV. Corda
IV. Corde
IV. String

**INTERPRETAZIONE
DEI SEGNI**

- I. II. III. IV. Corda.
- Arco in giù.
- Arco in su.
- 1. 2. 3. 4. Diteggiatura.
- 1. 2. 3. 4. Mano avanti.
- 1. 2. 3. 4. Mano indietro.
- In posizione.
- Armonico.
- ♀ Capotasto su nota armonica.
- + Capotasto.

**INTERPRETATION
DES SIGNES**

- I. II. III. IV. Corde.
- L'archet tire.
- L'archet pousse.
- 1. 2. 3. 4. Doigté.
- 1. 2. 3. 4. Main en avant.
- 1. 2. 3. 4. Main en arrière.
- Main en position.
- Harmonique.
- ♀ Capotasto sur note harmonique.
- + Capotasto.

**EXPLANATION
OF SIGNS**

- I. II. III. IV. String.
- Up-bow.
- Down-bow.
- 1. 2. 3. 4. Fingering.
- 1. 2. 3. 4. Hand forward.
- 1. 2. 3. 4. Hand back.
- Hand stationary.
- Harmonic.
- ♀ Thumb position on harmonic note.
- + Thumb position.

(*) Le note armoniche scritte in piccolo sono usate pochissimo o nulla affatto.

(**) Le lineette /, \, (—, —) poste avanti le note, come si vede dal prospetto, indicano la possibilità di ottenere, spostando un po' la mano verso il capotasto, uno ed anche due suoni armonici fra la distanza di mezzo tono a posizione naturale.

(*) Les notes harmoniques indiquées en petit caractère ne s'emploient que rarement ou jamais.

(**) Les petites lignes /, \, (—, —) placées devant les notes, comme on le verra dans le tableau, indiquent la possibilité d'obtenir, en déplaçant légèrement la main vers le capotasto, un et même deux sons harmoniques, entre la distance d'un demi-ton et la position naturelle.

(*) The harmonics in small type are used very little or practically never.

(**) The little lines /, \, (—, —) placed in front of the notes (see table) indicate the possibility, by shifting the hand slightly towards the "shoulder," or thumb position, of obtaining one or even two harmonics between the distance from the middle tone and the natural position.

22 | 9 | 09

Vin. JH



Primo Libro

Premier Livre

First Book

Allegro

1.

1 2 3 4 5 6 7 8 9 10

III

II.

E.R. 415

A page of musical notation for bassoon, featuring ten staves of music. The notation includes various slurs, grace notes, and dynamic markings like 'rall. sempre.' and 'Mol.' The page number 5 is in the top right corner.

Allegro

2.

1 2 3 4 5 6 7 8 9 10

III.

II.

The musical score consists of seven staves of bassoon music. The notation is dense, featuring sixteenth-note patterns, grace notes, and slurs. Measure groupings are indicated by brackets above the staff, labeled '1', '2', and '3'. Dynamic markings 'II' and 'III' appear at specific points. The bassoon part is set against a background of sustained notes.

VARIANTI
VARIANTES
VARIANTS

Three variants of a bassoon line, labeled 1, 2, and 3, illustrating alternative rhythmic interpretations or performance techniques. Variant 1 uses eighth-note patterns, Variant 2 uses sixteenth-note patterns, and Variant 3 uses eighth-note patterns again.

Andante

3. *p* *ben cantato*

un po' stent. *a tempo*

II.

III.

II.

II.

II.

Mosso

I. Tempo

PIZZ.

PIZZ.

E.R. 415

Mosso

4.

3211

II

II

1 4 2 3 2 1 4 3 2 1 3 2 1 2 3 4

1 2 3 4 3 2 1 4 3 2 1 3 2 1 2 3 4

1 2 3 4 3 2 1 4 3 2 1 3 2 1 2 3 4

3 1

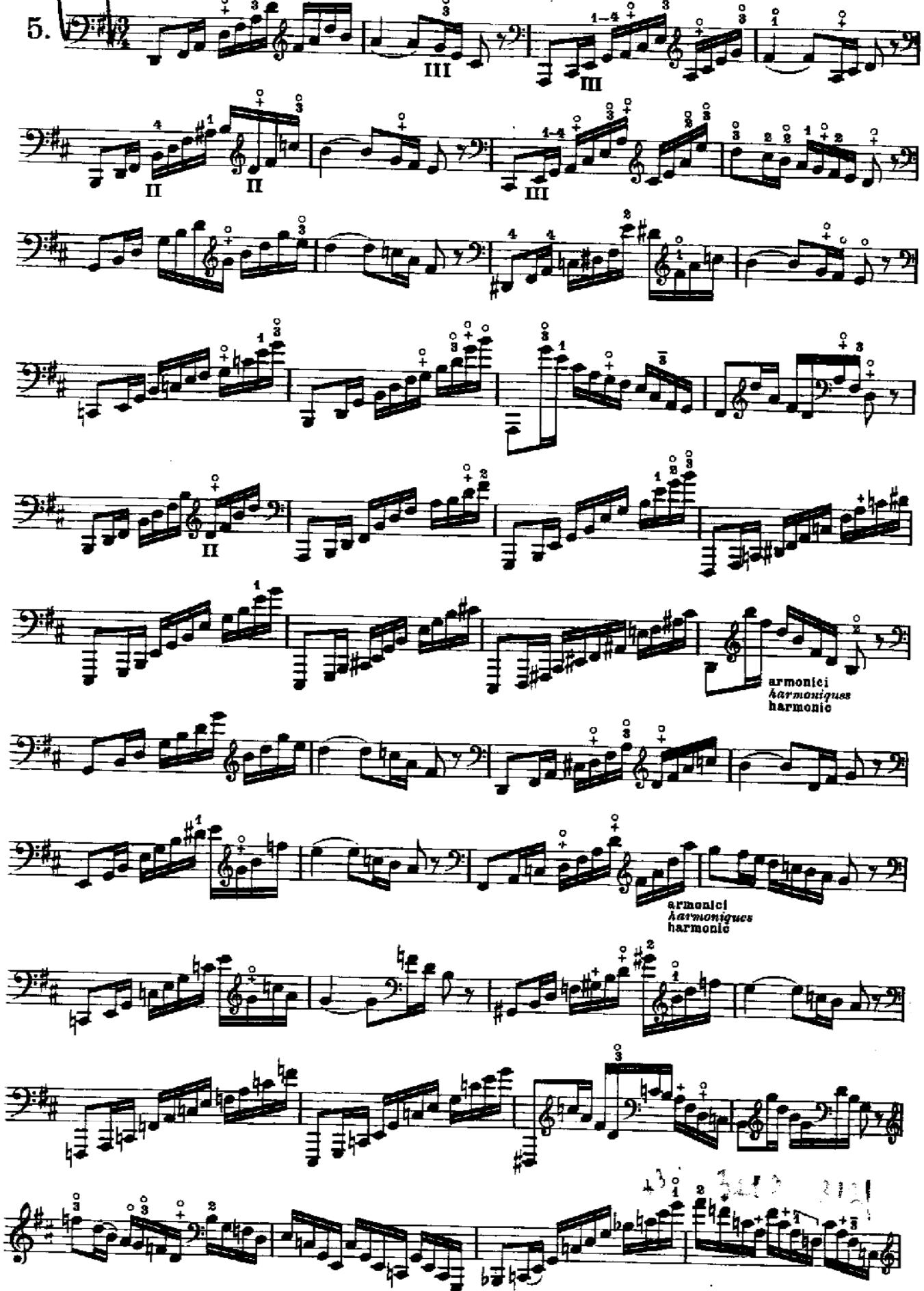
+

1 2 3 4 3 2 1 4 3 2 1 3 2 1 2 3 4

1 2 3 4 3 2 1 4 3 2 1 3 2 1 2 3 4

Sheet music for double bass, page 11, featuring ten staves of musical notation. The music is in 2/4 time, with a key signature of two sharps. The notation includes various dynamics such as \circ , $+$, \ddagger , and $\circ \ddagger$. The music is divided into sections labeled II., II., III., II., and II. The score consists of ten staves, each with a bass clef and a sharp sign.

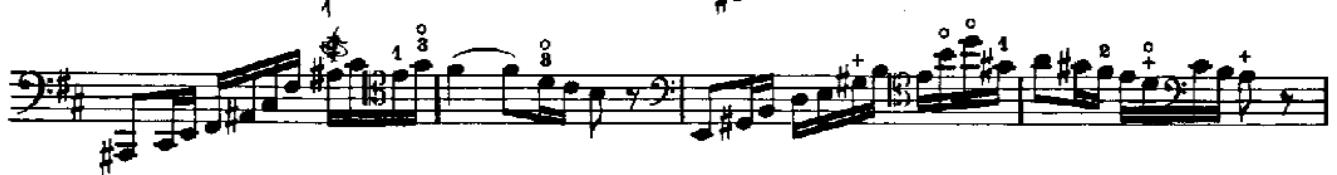
30 12 
 All' con fuoco

5. 

*armonici
harmoniques
harmonic*

*armonici
harmoniques
harmonic*

3

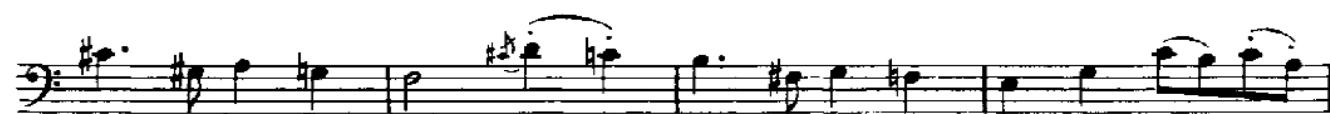


Tempo di Barcarola
All' ^{tt}o tranquillo





Tempo di Gavotta



un po' rall.



a tempo



sempre rall.
a tempo
rall.
a tempo
 ER. 415

Moderato

7.

E.R. 415

18

19

20

21

II

22

23

24

25

26

II

I

27

28

29

E.R. 415

Sheet music for double bass, page 10, measures 11-12. The music is in 2/4 time, key signature of B major (two sharps). The bass clef is on the fourth line. The first measure starts with a grace note followed by eighth notes. The second measure continues with eighth notes. Measure 11 ends with a fermata over the bass clef. Measure 12 begins with a grace note and eighth notes. The bass clef changes to the first line at the end of measure 12.

Presto

8.

The musical score consists of ten staves of double bass notation. The key signature is two flats. Measure numbers 'II' and 'III' are indicated below specific staves. The notation includes slurs, grace notes, and dynamic markings such as 'tr.' (trill). The music is in 2/4 time.

Measure 1: Double bass part. Dynamics: tr., tr., 3 tr., tr., tr., tr., tr.

Measure 2: Double bass part. Dynamics: tr., tr., ~, tr., tr., tr., tr.

Measure 3: Double bass part. Dynamics: 2 tr., tr., 2 tr., 3 tr., 2 tr., 2 tr., tr.

Measure 4: Double bass part. Dynamics: 1 tr., 2 tr., tr., tr., tr., tr., tr.

Measure 5: Double bass part. Dynamics: 1 tr., tr., tr., tr., tr., tr., tr.

Measure 6: Double bass part. Dynamics: 3 tr., tr., tr., tr., tr., tr., tr.

Measure 7: Double bass part. Dynamics: tr., tr., tr., tr., tr., tr., tr.

Measure 8: Double bass part. Dynamics: tr., tr., tr., tr., tr., tr., tr.

Measure 9: Double bass part. Dynamics: tr., tr., tr., tr., tr., tr., tr.

Measure 10: Double bass part. Dynamics: II, tr., tr., tr., tr., tr., tr., tr.

Measure 11: Double bass part. Dynamics: tr., tr., tr., tr., tr., tr., tr.

Measure 12: Double bass part. Dynamics: tr., tr., tr., tr., tr., tr., tr.

Measure 13: Double bass part. Dynamics: tr., tr., tr., tr., tr., tr., tr.

Measure 14: Double bass part. Dynamics: II, tr., tr., tr., tr., tr., tr., tr.

Spigliato

9.

E.R. 415

VARIANTI
VARIANTES
VARIANTS

1 2 3

4 5 6

Deciso

10. 

The score for Part 10, labeled "Deciso", is composed of ten staves of music for bassoon. The key signature is B-flat major (two flats), and the time signature is common time (indicated by a "6" over a "8"). The music features complex rhythmic patterns with many sixteenth-note slurs and grace notes. The bassoon part includes various slurs, grace notes, and dynamic markings such as "o" and "+".

The musical score consists of ten staves of double bass notation. The first staff begins with measure 1, indicated by a circled '1' above the first note. Measures 2 through 5 follow, with measure 5 ending on a double bar line. Measures 6 through 10 continue. Measure 11 begins with a circled '1' above the first note. Measures 12 through 15 follow. Measure 16 begins with a circled '1' above the first note. Measures 17 through 20 follow. Measure 21 begins with a circled '1' above the first note. Measures 22 through 25 follow. Measure 26 begins with a circled '1' above the first note. Measures 27 through 30 follow. Measure 31 begins with a circled '1' above the first note. Measures 32 through 35 follow. Measure 36 begins with a circled '1' above the first note. Measures 37 through 40 follow. Measure 41 begins with a circled '1' above the first note. Measures 42 through 45 follow. Measure 46 begins with a circled '1' above the first note. Measures 47 through 50 follow. Measure 51 begins with a circled '1' above the first note. Measures 52 through 55 follow. Measure 56 begins with a circled '1' above the first note. Measures 57 through 60 follow. Measure 61 begins with a circled '1' above the first note. Measures 62 through 65 follow. Measure 66 begins with a circled '1' above the first note. Measures 67 through 70 follow. Measure 71 begins with a circled '1' above the first note. Measures 72 through 75 follow. Measure 76 begins with a circled '1' above the first note. Measures 77 through 80 follow. Measure 81 begins with a circled '1' above the first note. Measures 82 through 85 follow. Measure 86 begins with a circled '1' above the first note. Measures 87 through 90 follow. Measure 91 begins with a circled '1' above the first note. Measures 92 through 95 follow. Measure 96 begins with a circled '1' above the first note. Measures 97 through 100 follow. Measure 101 begins with a circled '1' above the first note. Measures 102 through 105 follow. Measure 106 begins with a circled '1' above the first note. Measures 107 through 110 follow. Measure 111 begins with a circled '1' above the first note. Measures 112 through 115 follow. Measure 116 begins with a circled '1' above the first note. Measures 117 through 120 follow. Measure 121 begins with a circled '1' above the first note. Measures 122 through 125 follow. Measure 126 begins with a circled '1' above the first note. Measures 127 through 130 follow. Measure 131 begins with a circled '1' above the first note. Measures 132 through 135 follow. Measure 136 begins with a circled '1' above the first note. Measures 137 through 140 follow. Measure 141 begins with a circled '1' above the first note. Measures 142 through 145 follow. Measure 146 begins with a circled '1' above the first note. Measures 147 through 150 follow. Measure 151 begins with a circled '1' above the first note. Measures 152 through 155 follow. Measure 156 begins with a circled '1' above the first note. Measures 157 through 160 follow. Measure 161 begins with a circled '1' above the first note. Measures 162 through 165 follow. Measure 166 begins with a circled '1' above the first note. Measures 167 through 170 follow. Measure 171 begins with a circled '1' above the first note. Measures 172 through 175 follow. Measure 176 begins with a circled '1' above the first note. Measures 177 through 180 follow. Measure 181 begins with a circled '1' above the first note. Measures 182 through 185 follow. Measure 186 begins with a circled '1' above the first note. Measures 187 through 190 follow. Measure 191 begins with a circled '1' above the first note. Measures 192 through 195 follow. Measure 196 begins with a circled '1' above the first note. Measures 197 through 200 follow. Measure 201 begins with a circled '1' above the first note. Measures 202 through 205 follow. Measure 206 begins with a circled '1' above the first note. Measures 207 through 210 follow. Measure 208 ends the piece.

**DEI SUONI ARMONICI
ARTIFICIALI**

I suoni armonici artificiali si ottengono formando col pollice capotasto sulla corda ed allargando il 3º dito, che va tenuto superficialmente sulla corda stessa; ad intervallo di 5^a, 4^a e 3^a, ne esce l'armonico, che sarà rispettivamente di 12^a, 15^a, 17^a dalla nota sulla quale viene fissato il pollice.

Ad esempio:

**DES SONS HARMONIQUES
ARTIFICIELS**

Les sons harmoniques artificiels s'obtiennent en formant avec le pouce capotasto sur la corde, et en allongeant le 3^e doigt, que l'on pose légèrement sur la corde; à un intervalle de 5^e, de 4^e, ou de 3^e, on produira l'harmonique, qui sera respectivement de 12^e, 15^e, ou 17^e de la note sur laquelle le pouce est appuyé.

Exemple:

**ARTIFICIAL
HARMONICS**

Artificial harmonics are obtained by placing the thumb on the string and extending the 3rd finger, which is placed lightly on the same string; intervals of a fifth, a fourth and a third yield respectively a 12th, a 15th and an 17th from the note held by the thumb.
For example:

QUINTA

CINQUIÈME

FIFTH

Suono corrispondente
Son correspondant
Corresponding note

I. Corda
I. Corde
I. String



Suono naturale
Son naturel
Natural note

Per le prime quattro note, difficilmente la mano potrà arrivare all'intervallo di quinta.

Pour les quatre premières notes, la main n'arrivera qu'avec difficulté à l'intervalle de cinquième.

For the first four notes the hand will with difficulty reach the interval of a fifth.

Suono corrispondente
Son correspondant
Corresponding note

II. Corda
II. Corde
II. String



Suono naturale
Son naturel
Natural note

III. Corda
III. Corde
III. String



IV. Corda
IV. Corde
IV. String



QUARTA

QUATRIÈME

FOURTH

Suono corrispondente
Son correspondant
Corresponding sound

I. Corda
I. Corde
I. String

1, 3, 3, 3
1, 3, 3, 3
1, 3, 3, 3

+ + + ecc.
Suono naturale etc.
Son naturel
Natural note

II. Corda
II. Corde
II. String

3, 3, 3
3, 3, 3
3, 3, 3

+ + + ecc.
etc.

III. Corda
III. Corde
III. String

id.
1, 3, 3, 3
id.
1, 3, 3, 3
id.
1, 3, 3, 3

IV. Corda
IV. Corde
IV. String

id.
1, 3, 3, 3
id.
1, 3, 3, 3
id.
1, 3, 3, 3

TERZA

TROISIÈME

THIRD

Suono corrispondente
Son correspondant
Corresponding sound

I. Corda
I. Corde
I. String

1, 3, 3, 3
1, 3, 3, 3
1, 3, 3, 3

+ + + ecc.
Suono naturale etc.
Son naturel
Natural note

II. Corda
II. Corde
II. String

1, 3, 3, 3
1, 3, 3, 3
1, 3, 3, 3

+ + + ecc.
etc.

III. Corda
III. Corde
III. String

id.
1, 3, 3, 3
id.
1, 3, 3, 3
id.
1, 3, 3, 3

IV. Corda
IV. Corde
IV. String

id.
1, 3, 3, 3
id.
1, 3, 3, 3
id.
1, 3, 3, 3

N.B. Talora si può, in luogo del pollice, adoperare il 1^o dito e al posto del 3^o il 4^o dito (vedi studio N° 19); ciò serve a rendere più comoda la posizione della mano. Certo, ed è bene avvertire, i suoni armonici artificiali sul Contrabbasso sono, a priori, da escludersi per la difficoltà di ottenerli; se ne ho fatto breve accenno in qualche uno dei presenti studi, ho voluto solo rendere edotto lo studioso di particolarli che, pur riguardando lo strumento, non sono, in pratica, di facile applicazione.

N. B. On peut parfois, au lieu du pouce, employer le 1^{er} doigt, et au lieu du 3^e le 4^e (voir étude N° 19); ce changement sert à rendre plus commode la position de la main. Il est bon d'avertir ici que la production des sons harmoniques artificiels sur la Contrebasse est à écarter a priori, à cause de la difficulté à les obtenir; si nous les avons rapidement indiqués dans quelques-uns des exercices présents, c'est que nous avons voulu que l'artiste fût au courant de détails qui, sans être d'une application facile en pratique, intéressent pourtant son instrument.

N. B. Sometimes the first finger may be used instead of the thumb and the third instead of the fourth (See Study No. 19); this makes an easier position for the hand. It is true, and should be noted, that artificial harmonics on the double-bass are, *a priori*, to be avoided on account of their difficulty. If have made brief mention of them in some of the present studies, I have simply desired to inform the student of details which are not easily applied in practice to the instrument.

Secondo Libro

Deuxième Livre

Second Book

Nel presente studio vi sono, per la formazione di qualche accordo, posizioni difficili ed anche di ripiego: lo studioso se ne avvedrà.

Cette étude présente, pour la formation de certains accords, des positions difficiles et même de repli. L'élève les trouvera de lui-même.

In this exercise there are, for the formation of certain harmonies, difficult and complicated positions; the student will notice them.

11.

a) Per maggior comodità di mano e per formare istantanea la posizione, si metta: anulare (3) indice (1) medio (2): è la stessa denominazione di diteggiatura che usasi per il capotasto e tale digitazione si userà sul manico in altri casi consimili.

b) Il 1^o e 2^o dito saranno posti paralleli sulle due corde.

a) Pour obtenir une position plus commode de la main, et pour la trouver instantanément on placera les doigts comme suit: anulaire (3), index (1), médians (2); c'est la même indication de doigté que l'on emploie pour le capotasto; on trouvera utile de l'appliquer aussi sur le manche en d'autres cas analogues.

b) Le 1^{er} et le 2^e doigt parallèles sur les cordes.

a) For greater convenience of the hand and to form the position without delay use: third finger, first finger, second finger: it is the same fingering which is used for the thumb position and will be used on the open strings in other analogous cases.

b) The first and second fingers to be placed parallel on the strings.

VARIANTI
VARIANTES
VARIANTS

1.



c) Si metta sul Re il 3. dito in luogo del 4. e non lo si suoni armonico: ciò per ottenere il Fa♯ con minimo sforzo di mano.

d) Come la lettera b).

e) 2. e 3. dito posti paralleli sulle due corde.

2.

c) Mettre sur le Ré le 3^e doigt au lieu du 4^e, et ne pas le jouer en harmonique; on obtiendra ainsi le Fa♯ avec un moindre effort de la main.

d) Comme à la lettre b).

e) Le 2^e et le 3^e doigt parallèles sur les cordes.

c) Place the third finger on the D instead of the fourth and do not let its harmonic sound; this is in order to get the F♯ with less effort of the hand.

d) Same as b).

e) Second and third fingers placed parallel on the strings.

The musical score consists of ten staves of double bass notation. The key signature is A major (two sharps). The time signature varies throughout the piece. The notation includes:

- Bowings:** Indicated by diagonal strokes above or below the staff.
- Fingerings:** Numbered 1, 2, 3, or 4 placed above or below specific notes.
- Dynamic markings:** 'opp.' (opposite), 'or', and '+'. There is also a circled '2' in the fourth staff.
- Section markers:** 'II.' appears twice, once after the fifth staff and once before the eighth staff.
- Text at the bottom:** 'III.'

opp.
ou
or 3

II.

III.

IV.

V.

VI.

IV. Corda.

VARIANTI
VARIANTES 1
VARIANTS



13. *Vivace*

The musical score consists of 12 staves of bassoon and piano music. The bassoon part is written in bass clef, and the piano part is indicated by a treble clef and a bass clef in the upper right corner of each staff. The music is in common time (indicated by '4'). The bassoon part features continuous slurs and grace notes. The piano part provides harmonic support with sustained notes and chords. Measure numbers I through XII are present at the beginning of several staves.

The musical score consists of ten staves of bassoon music. The notation is highly rhythmic, featuring sixteenth-note patterns and grace notes. Slurs are used to group notes, and dynamic markings such as 'f' (fortissimo) and 'p' (pianissimo) are present. The bass clef is consistently used across all staves.

A page of musical notation for bassoon, consisting of ten staves of music. The notation is written on a bass clef staff. Fingerings are indicated above the notes, and slurs are used to group the notes. The music includes various key changes and dynamic markings. The first staff begins with a key signature of one flat, followed by a section with two sharps, then back to one flat, then to one sharp, then back to one flat. The second staff begins with one sharp, followed by a section with two sharps, then back to one sharp, then to one flat. The third staff begins with one sharp, followed by a section with two sharps, then back to one sharp. The fourth staff begins with one sharp, followed by a section with two sharps, then back to one sharp. The fifth staff begins with one sharp, followed by a section with two sharps, then back to one sharp. The sixth staff begins with one sharp, followed by a section with two sharps, then back to one sharp. The seventh staff begins with one sharp, followed by a section with two sharps, then back to one sharp. The eighth staff begins with one sharp, followed by a section with two sharps, then back to one sharp. The ninth staff begins with one sharp, followed by a section with two sharps, then back to one sharp. The tenth staff begins with one sharp, followed by a section with two sharps, then back to one sharp.

Con brio

14.

15. 16.

opp. 3
or

opp. + 3
or

II

opp. + 3
or

Moderato

15. 

Moderato

15.

ben staccate
bien détaché
very detached



II

Musical score for bassoon, page 40, featuring ten staves of music. The score consists of ten staves of music, each with a bass clef and a key signature of one sharp. Measure numbers 1 through 14 are indicated above the staves. The music consists primarily of eighth-note patterns, with some sixteenth-note figures and grace notes. The key signature changes from one sharp to two sharps, and the time signature varies between common time and 2/4.

II.

*opp. + 3
or
or*

E.R. 415

Veloce

16.

E.R. 415

A page of musical notation for bassoon, consisting of ten staves of music. The notation includes various dynamics such as \circ , $+$, 1 , 2 , 3 , 4 , 0 , and $\frac{1}{2}$. The music is divided into measures by vertical bar lines. The bassoon part is accompanied by a continuous basso continuo line at the bottom of each staff, indicated by a bass clef and a 'C' bass note. The page number 48 is located in the top right corner.

The musical score consists of ten staves of bassoon music. The notation is highly technical, featuring slurs, grace notes, and specific fingerings indicated by numbers (1, 2, 3, 4, 8, 8+) above or below the notes. The music is divided into measures by vertical bar lines. The bassoon part is set against a background of sustained notes on the first and fourth staves.

Measure 1: Slurs across the staff. Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 2: Slurs across the staff. Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 3: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 4: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 5: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 6: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 7: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 8: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 9: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 10: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 11: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 12: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 13: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 14: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 15: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 16: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 17: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 18: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 19: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 20: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 21: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 22: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 23: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 24: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 25: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 26: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 27: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 28: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 29: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 30: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 31: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 32: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 33: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 34: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 35: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 36: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 37: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 38: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 39: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 40: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 41: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 42: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 43: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 44: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 45: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 46: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 47: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 48: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 49: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 50: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 51: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 52: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 53: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 54: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 55: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 56: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 57: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 58: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 59: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 60: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 61: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 62: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 63: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 64: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 65: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 66: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 67: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 68: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 69: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 70: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 71: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 72: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 73: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 74: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 75: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 76: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 77: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 78: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 79: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 80: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 81: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 82: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 83: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 84: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 85: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 86: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 87: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 88: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 89: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 90: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 91: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 92: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 93: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 94: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 95: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 96: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 97: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 98: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 99: Fingerings: 1, 2, 3, 4, 8, 8+.

Measure 100: Fingerings: 1, 2, 3, 4, 8, 8+.

The musical score consists of ten staves of bassoon music. The notation is dense, featuring sixteenth-note patterns, grace notes, and various dynamic markings. Some notes are marked with circled numbers (1, 2, 3, 4) and plus signs (+) above them. The music is in common time, with a key signature of one sharp. The page number 45 is located at the top right, and the page number 115 is at the bottom center.

Adagio

17.

a)

b)

c)

d)

e)

f)

a tempo

rall.

Un po' più mosso

III.

II

II — I

- a)* Abbassare il medio soltanto (2º dito) per allargare il mignolo (4º dito) con maggior facilità.
- b)* Come la lettera *a*.
- c)* Il medio (2) e l'anulare (3) paralleli sulle corde.
- d)* Come la lettera *a*.
- e)* Idem e non armonico il Re.
- f)* Il 1º e 2º dito paralleli sulle corde.

- a)* Abaisser le médium seulement, pour que le petit doigt s'allonge plus facilement.
- b)* Comme à la lettre *a*.
- c)* Le médium (2^e doigt) et l'annulaire (3^e doigt) parallèles sur les cordes.
- d)* Comme à la lettre *a*.
- e)* Comme à la lettre *a* le Ré non harmonique.
- f)* Le 1^{er} et le 2^e doigt parallèles sur les cordes.

- a)* Lower the middle finger only, to stretch the little finger with greater ease.
- b)* Same as *a*.
- c)* The middle (2nd) and third fingers parallel on the strings.
- d)* Same as *a*.
- e)* Same as *a* and the D not harmonic.
- f)* 1st and 2nd fingers parallel on the strings.

Vivo

adagio *a tempo* *rall.*

a tempo *adagio* *a tempo* *adagio*

a tempo *rall.* *a tempo*

opp.
or

II.....I
I
II.....I

4

a tempo *rall.* *a tempo*

a tempo

a tempo

a tempo

rall. *a tempo* *adagio*

a tempo adagio a tempo
 opp.
or
or

1 4 1 3 4 4 4 4 4

a tempo
 adagio

adagio a tempo

adagio a tempo

opp.
or
or

a tempo rall.
 a tempo

opp.
or

a tempo adagio a tempo rall.

opp.
or

Adagio

10 staves of musical notation for bassoon, in Adagio tempo. The score consists of ten staves of bassoon music. The first six staves are in common time, while the last four are in 3/4 time. Measure numbers are present above the staves. Various performance markings are included, such as slurs, grace notes, and dynamic markings like V . The bassoon part features complex rhythmic patterns and harmonic changes.

Stretta

10 staves of musical notation for bassoon, in Stretta tempo. The score consists of ten staves of bassoon music. The entire section is in 3/4 time. The bassoon part features rapid, repetitive eighth-note patterns with various slurs and grace notes. The dynamics are mostly forte, indicated by large F markings.

Allegro risoluto

18.

II

The musical score consists of two parts: Bassoon and Cello. Both parts are in 2/4 time and one flat key signature.

Bassoon Part:

- Measure 1: Bassoon plays eighth-note pairs. Cello provides harmonic support.
- Measure 2: Bassoon continues eighth-note pairs. Cello provides harmonic support.
- Measure 3: Bassoon plays eighth-note pairs. Cello provides harmonic support.
- Measure 4: Bassoon plays eighth-note pairs. Cello provides harmonic support.
- Measure 5: Bassoon plays eighth-note pairs. Cello provides harmonic support.
- Measure 6: Bassoon plays eighth-note pairs. Cello provides harmonic support.
- Measure 7: Bassoon plays eighth-note pairs. Cello provides harmonic support.
- Measure 8: Bassoon plays eighth-note pairs. Cello provides harmonic support.
- Measure 9: Bassoon plays eighth-note pairs. Cello provides harmonic support.
- Measure 10: Bassoon plays eighth-note pairs. Cello provides harmonic support.

Cello Part:

- Measure 1: Cello provides harmonic support for Bassoon 1.
- Measure 2: Cello provides harmonic support for Bassoon 1.
- Measure 3: Cello provides harmonic support for Bassoon 1.
- Measure 4: Cello provides harmonic support for Bassoon 1.
- Measure 5: Cello provides harmonic support for Bassoon 1.
- Measure 6: Cello provides harmonic support for Bassoon 1.
- Measure 7: Cello provides harmonic support for Bassoon 1.
- Measure 8: Cello provides harmonic support for Bassoon 1.
- Measure 9: Cello provides harmonic support for Bassoon 1.
- Measure 10: Cello provides harmonic support for Bassoon 1.

Musical score for double bass, page 52, containing ten staves of music. The score consists of ten staves, each starting with a bass clef and a key signature of three flats. The time signature varies between 2/4, common time, and 3/4. Measure numbers 1 through 10 are placed above the staves. The music features various note values (eighth and sixteenth notes), rests, and dynamic markings such as forte, piano, and sforzando. Articulation marks like accents and slurs are also present.

II

E.R. 415

Gli armonici artificiali introdotti nel presente studio non sono, come si sa, facili ad ottenersi; i meno opportuni sono indicati dalla ..., lasciando così libero lo studioso di eseguire il passo con o senza armonici, a suo piacere.

Les harmoniques artificiels introduits dans cette étude ne sont pas, on le sait, d'obtention facile; les moins opportuns sont désignés par le pointillé ..., l'étudiant aura ainsi la liberté d'exécuter à son gré le passage avec ou sans harmoniques.

The artificial harmonics introduced in this exercise are, as we have shown, not easy to get; the most awkward are indicated by dots ..., thus leaving the student free to execute the passage with or without harmonics according to his pleasure.

Moderato

19.

Moderato

19.

1 8 4 1 4 1 4 1

6 6 6 6

3 4 1 4 4 1 4 1 3 4

2 1 1 1 1 1 1 1 1 1

1 2 1 3 1 2 1 2 1 2

PIZZ.

II

ARCO 3 4 1 4 4 1 4 1 4 1

6

4 1 1 1 1 1 1 1 1 1

2 1 1 1 1 1 1 1 1 1

PIZZ.

ARCO 3 4 1 4 4 1 4 1 4 1

rall. a tempo 6 6

4 3 2 1 4 3 2 1 4 3 2 1

ARCO 1 4 3 2 1 4 3 2 1 4 3 2 1

meno II a tempo 2 2 2 2 2 2 2 2 2 2

4
meno a tempo

1 1
2 2
3 3
4 4
5 5
6 6

1 1
2 2
3 3
4 4
5 5
6 6

1 1
2 2
3 3
4 4
5 5
6 6

1 1
2 2
3 3
4 4
5 5
6 6

a tempo 6
3 3
4 4

1 1
2 2
3 3
4 4
5 5
6 6

PIZZ.
rall.

ARCO
III.
a tempo

6 6
6 6
II. rall.

The image displays ten staves of double bass sheet music. The music is written in bass clef and includes several key signatures. The notation consists primarily of eighth and sixteenth notes. Numerous performance instructions are scattered throughout the score, such as "PIZZ.", "ARCO", "rall. II.", "a tempo", and "meno". Some of these markings are enclosed in brackets or have arrows pointing to specific notes. The music is divided into measures by vertical bar lines.

The image displays ten staves of double bass sheet music. The notation includes various performance techniques such as PIZZ. (pizzicato), ARCO, rallentando (rall.), and tempo markings like a tempo. Fingerings are indicated by numbers above the notes. The music consists of continuous eighth-note patterns with occasional sixteenth-note figures and rests. The bass clef is used throughout, and the key signature changes between staves.

Con slancio

20.

I.
II.
IV.
III.

opp. 3+
or

The image displays a page of sheet music for piano, arranged in ten horizontal staves. The music is set in common time. The notation is primarily composed of eighth-note patterns, often grouped by vertical bar lines. Measure numbers 1 through 10 are placed above the staves. Several dynamic markings are present, including 'opp. 3 +' and 'or' near the beginning, and 'III.' at the end of measure 8. Performance instructions like '1', '2', and '3' are also visible. The music uses both treble and bass clefs.

1
2
3
4
5
6
7
8
9
10
11
12

IV.
I.
II.
III.
II.