

# Les harmoniques des cordes frottées de l'orchestre

## Violon

Nelson MALLÉUS

Pour les harmoniques artificiels, si le choix de la corde n'est pas indiqué, alors l'instrumentiste joue sur la corde la plus aiguë, sauf dans certains cas d'enchaînements de doigtés.

L'harmonique à la quarte est plus largement utilisé, davantage travaillé par les instrumentistes et plus caractéristique des sons harmoniques que celui à la quinte.

### Harmoniques artificiels dans l'ordre ascendant

Résultat

Quarte

Quinte

Résultat

Quarte

Quinte

Résultat

Quarte

Quinte

Harmoniques naturels usuels par corde

Résultat

Notation

Harmoniques naturels usuels dans l'ordre ascendant

Résultat

Notation

Harmoniques naturels par rangs sur la corde de sol

Résultat

Notation

Harmoniques naturels par rangs sur la corde de sol (continued)

Résultat

Notation

Harmoniques naturels du sillet au chevalet sur la corde de sol

Résultat

Notation

Harmoniques naturels du sillet au chevalet sur la corde de sol (continued)

Résultat

Notation

Harmoniques naturels par rangs sur la corde de ré

Résultat

Notation

Résultat

Notation

Harmoniques naturels du sillet au chevalet sur la corde de ré

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Harmoniques naturels par rangs sur la corde de la

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Harmoniques naturels du sillet au chevalet sur la corde de la

Résultat

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Harmoniques naturels par rangs sur la corde de mi

Résultat

Notation

Harmoniques naturels du sillet au chevalet sur la corde de mi

Résultat

Notation

# Les harmoniques des cordes frottées de l'orchestre

## Alto

Nelson MALLÉUS

Pour les harmoniques artificiels, si le choix de la corde n'est pas indiqué, alors l'instrumentiste joue sur la corde la plus aiguë, sauf dans certains cas d'enchaînements de doigts.

L'harmonique à la quarte est plus largement utilisé, davantage travaillé par les instrumentistes et plus caractéristique des sons harmoniques que celui à la quinte.

### Harmoniques artificiels dans l'ordre ascendant

Résultat

Quarte

Quinte

Résultat

Quarte

Quinte

Résultat

Quarte

Quinte

## Harmoniques naturels usuels par corde

Résultat

Notation

Diagram showing natural harmonics on a single string (C) with labels: sul C, sul G, sul D, sul A, and 8<sup>va</sup>.

## Harmoniques naturels usuels dans l'ordre ascendant

Résultat

Notation

Diagram showing natural harmonics in ascending order with labels: sul C, sul C, sul G, sul C, sul G, sul D, sul G, sul D, sul A, sul D, sul A, sul A, and 8<sup>va</sup>.

## Harmoniques naturels par rangs sur la corde de do

Résultat

Notation

Diagram showing natural harmonics by ranks on the C string, labeled 2, 3, 4, 5, 6, and 7.

Résultat

Notation

Diagram showing natural harmonics by ranks on the C string, labeled 8, 9, 10, 11, 12, 13, and 14.

## Harmoniques naturels du silet au chevalet sur la corde de do

Résultat

Notation

Diagram showing natural harmonics from the bridge to the nut on the C string.

Résultat

Notation

Diagram showing natural harmonics from the bridge to the nut on the C string, including an 8<sup>va</sup> label.

**Harmoniques naturels par rangs sur la corde de sol**

Résultat

Notation

Résultat

Notation

**Harmoniques naturels du sillet au chevalet sur la corde de sol**

Résultat

Notation

Résultat

Notation

**Harmoniques naturels par rangs sur la corde de ré**

Résultat

Notation

Résultat

Notation

Detailed description: This section shows two staves. The top staff, labeled 'Résultat', displays the harmonic spectrum on a treble clef staff with a key signature of one sharp (F#). It features a series of notes: F#4, G4, A4, B4, C5, D5, E5, F#5, G5, A5, B5, C6, D6, E6, F#6, G6, A6, B6, C7, D7, E7, F#7, G7, A7, B7, C8, D8, E8, F#8, G8, A8, B8, C9, D9, E9, F#9, G9, A9, B9, C10, D10, E10, F#10, G10, A10, B10, C11, D11, E11, F#11, G11, A11, B11, C12, D12, E12, F#12, G12, A12, B12, C13, D13, E13, F#13, G13, A13, B13, C14, D14, E14, F#14, G14, A14, B14, C15, D15, E15, F#15, G15, A15, B15, C16, D16, E16, F#16, G16, A16, B16, C17, D17, E17, F#17, G17, A17, B17, C18, D18, E18, F#18, G18, A18, B18, C19, D19, E19, F#19, G19, A19, B19, C20, D20, E20, F#20, G20, A20, B20, C21, D21, E21, F#21, G21, A21, B21, C22, D22, E22, F#22, G22, A22, B22, C23, D23, E23, F#23, G23, A23, B23, C24, D24, E24, F#24, G24, A24, B24, C25, D25, E25, F#25, G25, A25, B25, C26, D26, E26, F#26, G26, A26, B26, C27, D27, E27, F#27, G27, A27, B27, C28, D28, E28, F#28, G28, A28, B28, C29, D29, E29, F#29, G29, A29, B29, C30, D30, E30, F#30, G30, A30, B30, C31, D31, E31, F#31, G31, A31, B31, C32, D32, E32, F#32, G32, A32, B32, C33, D33, E33, F#33, G33, A33, B33, C34, D34, E34, F#34, G34, A34, B34, C35, D35, E35, F#35, G35, A35, B35, C36, D36, E36, F#36, G36, A36, B36, C37, D37, E37, F#37, G37, A37, B37, C38, D38, E38, F#38, G38, A38, B38, C39, D39, E39, F#39, G39, A39, B39, C40, D40, E40, F#40, G40, A40, B40, C41, D41, E41, F#41, G41, A41, B41, C42, D42, E42, F#42, G42, A42, B42, C43, D43, E43, F#43, G43, A43, B43, C44, D44, E44, F#44, G44, A44, B44, C45, D45, E45, F#45, G45, A45, B45, C46, D46, E46, F#46, G46, A46, B46, C47, D47, E47, F#47, G47, A47, B47, C48, D48, E48, F#48, G48, A48, B48, C49, D49, E49, F#49, G49, A49, B49, C50, D50, E50, F#50, G50, A50, B50, C51, D51, E51, F#51, G51, A51, B51, C52, D52, E52, F#52, G52, A52, B52, C53, D53, E53, F#53, G53, A53, B53, C54, D54, E54, F#54, G54, A54, B54, C55, D55, E55, F#55, G55, A55, B55, C56, D56, E56, F#56, G56, A56, B56, C57, D57, E57, F#57, G57, A57, B57, C58, D58, E58, F#58, G58, A58, B58, C59, D59, E59, F#59, G59, A59, B59, C60, D60, E60, F#60, G60, A60, B60, C61, D61, E61, F#61, G61, A61, B61, C62, D62, E62, F#62, G62, A62, B62, C63, D63, E63, F#63, G63, A63, B63, C64, D64, E64, F#64, G64, A64, B64, C65, D65, E65, F#65, G65, A65, B65, C66, D66, E66, F#66, G66, A66, B66, C67, D67, E67, F#67, G67, A67, B67, C68, D68, E68, F#68, G68, A68, B68, C69, D69, E69, F#69, G69, A69, B69, C70, D70, E70, F#70, G70, A70, B70, C71, D71, E71, F#71, G71, A71, B71, C72, D72, E72, F#72, G72, A72, B72, C73, D73, E73, F#73, G73, A73, B73, C74, D74, E74, F#74, G74, A74, B74, C75, D75, E75, F#75, G75, A75, B75, C76, D76, E76, F#76, G76, A76, B76, C77, D77, E77, F#77, G77, A77, B77, C78, D78, E78, F#78, G78, A78, B78, C79, D79, E79, F#79, G79, A79, B79, C80, D80, E80, F#80, G80, A80, B80, C81, D81, E81, F#81, G81, A81, B81, C82, D82, E82, F#82, G82, A82, B82, C83, D83, E83, F#83, G83, A83, B83, C84, D84, E84, F#84, G84, A84, B84, C85, D85, E85, F#85, G85, A85, B85, C86, D86, E86, F#86, G86, A86, B86, C87, D87, E87, F#87, G87, A87, B87, C88, D88, E88, F#88, G88, A88, B88, C89, D89, E89, F#89, G89, A89, B89, C90, D90, E90, F#90, G90, A90, B90, C91, D91, E91, F#91, G91, A91, B91, C92, D92, E92, F#92, G92, A92, B92, C93, D93, E93, F#93, G93, A93, B93, C94, D94, E94, F#94, G94, A94, B94, C95, D95, E95, F#95, G95, A95, B95, C96, D96, E96, F#96, G96, A96, B96, C97, D97, E97, F#97, G97, A97, B97, C98, D98, E98, F#98, G98, A98, B98, C99, D99, E99, F#99, G99, A99, B99, C100, D100, E100, F#100, G100, A100, B100, C101, D101, E101, F#101, G101, A101, B101, C102, D102, E102, F#102, G102, A102, B102, C103, D103, E103, F#103, G103, A103, B103, C104, D104, E104, F#104, G104, A104, B104, C105, D105, E105, F#105, G105, A105, B105, C106, D106, E106, F#106, G106, A106, B106, C107, D107, E107, F#107, G107, A107, B107, C108, D108, E108, F#108, G108, A108, B108, C109, D109, E109, F#109, G109, A109, B109, C110, D110, E110, F#110, G110, A110, B110, C111, D111, E111, F#111, G111, A111, B111, C112, D112, E112, F#112, G112, A112, B112, 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B205, C206, D206, E206, F#206, G206, A206, B206, C207, D207, E207, F#207, G207, A207, B207, C208, D208, E208, F#208, G208, A208, B208, C209, D209, E209, F#209, G209, A209, B209, C210, D210, E210, F#210, G210, A210, B210, C211, D211, E211, F#211, G211, A211, B211, C212, D212, E212, F#212, G212, A212, B212, C213, D213, E213, F#213, G213, A213, B213, C214, D214, E214, F#214, G214, A214, B214, C215, D215, E215, F#215, G215, A215, B215, C216, D216, E216, F#216, G216, A216, B216, C217, D217, E217, F#217, G217, A217, B217, C218, D218, E218, F#218, G218, A218, B218, C219, D219, E219, F#219, G219, A219, B219, C220, D220, E220, F#220, G220, A220, B220, C221, D221, E221, F#221, G221, A221, B221, C222, D222, E222, F#222, G222, A222, B222, C223, D223, E223, F#223, G223, A223, B223, C224, D224, E224, F#224, G224, A224, B224, C225, D225, E225, F#225, G225, A225, B225, C226, D226, E226, F#226, G226, A226, B226, C227, D227, E227, F#227, G227, A227, B227, C228, D228, E228, F#228, G228, A228, B228, C229, 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D322, E322, F#322, G322, A322, B322, C323, D323, E323, F#323, G323, A323, B323, C324, D324, E324, F#324, G324, A324, B324, C325, D325, E325, F#325, G325, A325, B325, C326, D326, E326, F#326, G326, A326, B326, C327, D327, E327, F#327, G327, A327, B327, C328, D328, E328, F#328, G328, A328, B328, C329, D329, E329, F#329, G329, A329, B329, C330, D330, E330, F#330, G330, A330, B330, C331, D331, E331, F#331, G331, A331, B331, C332, D332, E332, F#332, G332, A332, B332, C333, D333, E333, F#333, G333, A333, B333, C334, D334, E334, F#334, G334, A334, B334, C335, D335, E335, F#335, G335, A335, B335, C336, D336, E336, F#336, G336, A336, B336, C337, D337, E337, F#337, G337, A337, B337, C338, D338, E338, F#338, G338, A338, B338, C339, D339, E339, F#339, G339, A339, B339, C340, D340, E340, F#340, G340, A340, B340, C341, D341, E341, F#341, G341, A341, B341, C342, D342, E342, F#342, G342, A342, B342, C343, D343, E343, F#343, G343, A343, B343, C344, D344, E344, F#344, G344, A344, B344, C345, D345, E345, F#345, G345, A345, B345, C346, D346, E346, F#346, G346, A346, B346, C347, D347, E347, F#347, G347, A347, B347, C348, D348, E348, F#348, G348, A348, B348, C349, D349, E349, F#349, G349, A349, B349, C350, D350, E350, F#350, G350, A350, B350, C351, D351, E351, F#351, G351, A351, B351, C352, D352, E352, F#352, G352, A352, B352, C353, D353, E353, F#353, G353, A353, B353, C354, D354, E354, F#354, G354, A354, B354, C355, D355, E355, F#355, G355, A355, B355, C356, D356, E356, F#356, G356, A356, B356, C357, D357, E357, F#357, G357, A357, B357, C358, D358, E358, F#358, G358, A358, B358, C359, D359, E359, F#359, G359, A359, B359, C360, D360, E360, F#360, G360, A360, B360, C361, D361, E361, F#361, G361, A361, B361, C362, D3

# Les harmoniques des cordes frottées de l'orchestre

## Violoncelle

Nelson MALLÉUS

Pour les harmoniques artificiels, si le choix de la corde n'est pas indiqué, alors l'instrumentiste joue sur la corde la plus aiguë, sauf dans certains cas d'enchaînements de doigts.

L'harmonique à la quarte est plus largement utilisé, davantage travaillé par les instrumentistes et plus caractéristique des sons harmoniques que celui à la quinte.

### Harmoniques artificiels dans l'ordre ascendant

Résultat

Quarte

Quinte

Résultat

Quarte

Quinte

Résultat

Quarte

Quinte

**Harmoniques naturels usuels par corde**

Résultat

Notation

Labels: sul C, sul G, sul D, sul A

**Harmoniques naturels usuels dans l'ordre ascendant**

Résultat

Notation

Labels: sul C, sul C, sul G, sul C, sul G, sul D, sul G, sul D, sul A, sul D, sul A, sul A

**Harmoniques naturels par rangs sur la corde de do**

Résultat

Notation

Labels: 2, 3, 4, 5, 6, 7

Résultat

Notation

Labels: 8, 9, 10, 11, 12, 13, 14

**Harmoniques naturels du sillet au chevalet sur la corde de do**

Résultat

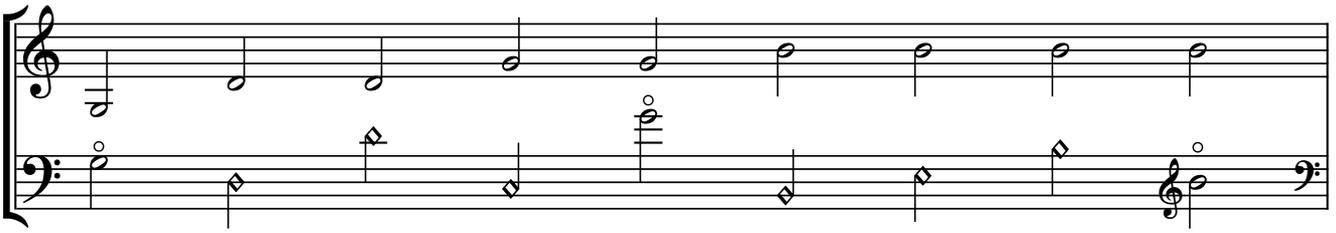
Notation

Résultat

Notation

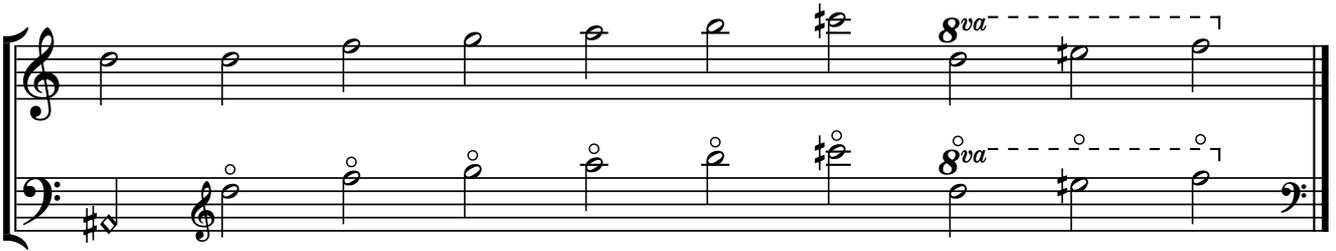
**Harmoniques naturels par rangs sur la corde de sol**

Résultat



Notation

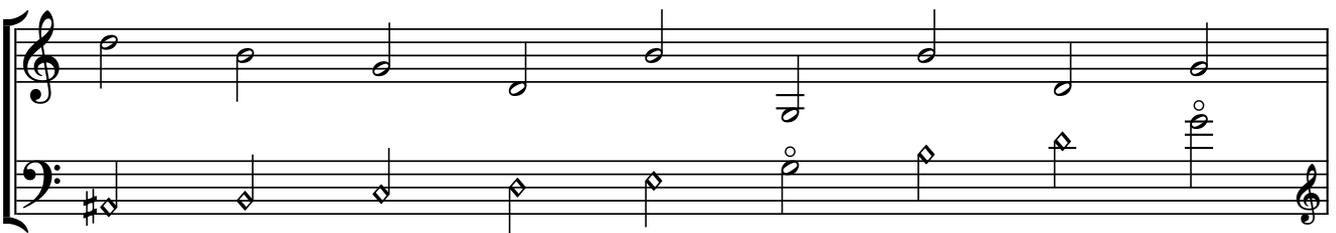
Résultat



Notation

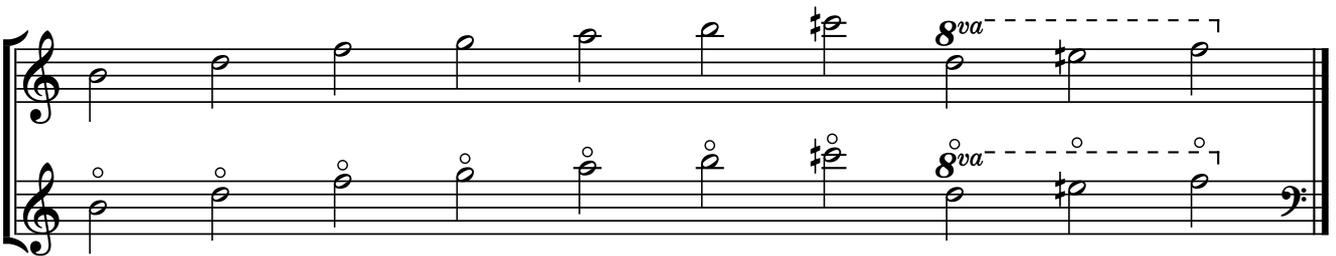
**Harmoniques naturels du sillet au chevalet sur la corde de sol**

Résultat



Notation

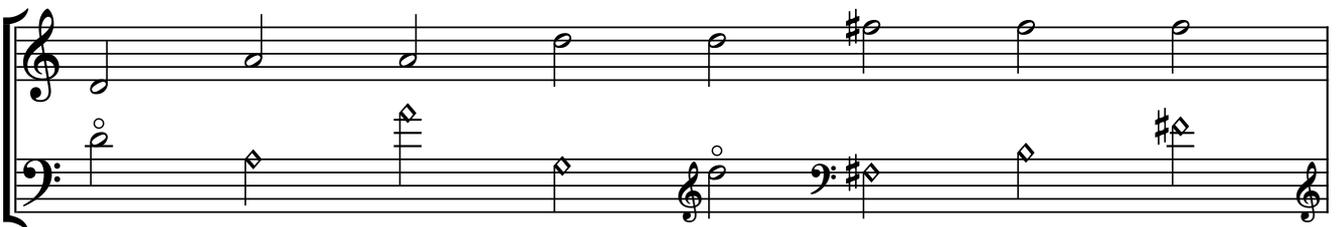
Résultat



Notation

**Harmoniques naturels par rangs sur la corde de ré**

Résultat



Notation

Résultat

Notation

This section shows the first set of harmonics on the D string. The 'Résultat' staff (treble clef) displays the natural harmonics: D2 (open), D3 (first position), E3 (second position), F#3 (third position), G4 (fourth position), A4 (fifth position), B4 (sixth position), and D5 (seventh position). The 'Notation' staff (bass clef) shows the corresponding fingerings and positions for each harmonic, with a dashed line labeled '8va' indicating the octave shift for the higher notes.

**Harmoniques naturels du sillet au chevalet sur la corde de ré**

Résultat

Notation

This section illustrates the natural harmonics on the D string. The 'Résultat' staff (treble clef) shows the notes: D2, D3, E3, F#3, G4, A4, B4, and D5. The 'Notation' staff (bass clef) shows the fingerings and positions for each harmonic, with a dashed line labeled '8va' indicating the octave shift.

Résultat

Notation

This section shows another set of natural harmonics on the D string. The 'Résultat' staff (treble clef) displays the notes: D2, D3, E3, F#3, G4, A4, B4, and D5. The 'Notation' staff (bass clef) shows the fingerings and positions, with a dashed line labeled '8va' indicating the octave shift.

**Harmoniques naturels par rangs sur la corde de la**

Résultat

Notation

This section illustrates natural harmonics on the A string. The 'Résultat' staff (treble clef) shows the notes: A2, A3, B3, C#4, D4, E4, F#4, and A5. The 'Notation' staff (bass clef) shows the fingerings and positions for each harmonic, with a dashed line labeled '8va' indicating the octave shift.

**Harmoniques naturels du sillet au chevalet sur la corde de la**

Résultat

Notation

This section shows another set of natural harmonics on the A string. The 'Résultat' staff (treble clef) displays the notes: A2, A3, B3, C#4, D4, E4, F#4, and A5. The 'Notation' staff (bass clef) shows the fingerings and positions, with a dashed line labeled '8va' indicating the octave shift.

# Les harmoniques des cordes frottées de l'orchestre

## Contrebasse

Nelson MALLÉUS

Pour les harmoniques artificiels de la contrebasse, contrairement aux autres instruments, les harmoniques à la quinte sont un peu plus accessibles et surtout beaucoup plus efficaces.

Les harmoniques à la quarte ne seront utilisés qu'exceptionnellement pour des effets particuliers, mais pas en tant qu'harmoniques classiques.

### Harmoniques artificiels dans l'ordre ascendant

Résultat

Quarte

Quinte

préférer la quinte à la quarte

sul C  
peu intéressant

sul E

sul A

Résultat

Quarte

Quinte

sul D

sul G

### Harmoniques naturels usuels par corde

Résultat

Notation

sul C

sul E

sul A

sul D

sul G

**Harmoniques naturels usuels dans l'ordre ascendant**

Résultat

Notation

sul C sul E sul C sul A sul E sul C sul D sul E sul A sul G sul A sul D sul D sul G sul G

**Harmoniques naturels par rangs sur la corde de do**

Résultat

Notation

**Harmoniques naturels du sillet au chevalet sur la corde de do**

Résultat

Notation

**Harmoniques naturels par rangs sur la corde de mi**

Résultat

Notation

**Harmoniques naturels du sillet au chevalet sur la corde de mi**

Résultat

Notation

