I'm not a robot

Math rock chords

Get My Free Math Rock Practice Material Take A Look Inside the Guide Share — copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt — remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution — You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Reddit and its partners use cookies and similar technologies to provide you with a better experience. By accepting all cookies, you agree to our use of cookies to deliver and maintain our services and site, improve the quality of Reddit, personalize Reddit content and advertising, and measure the effectiveness of advertising. By rejecting non-essential cookies, Reddit may still use certain cookies to ensure the proper functionality of our platform. For more information, please see our Cookie Notice and our Privacy Policy. Since its inception in the 90s, math rock has been the home of some of the most forward-thinking rock bands out there. Combining the use of complex, hypnotic grooves, with layered up guitar harmonies, math rock bands have sprung up around the world to serve its satisfying sounds to those strange sorts of music-heads who enjoy getting their head in a twist. But math rock isn't all about topsy-turvy rhythmic trickery. Luscious harmony and extended chords often make for beautiful moments amidst the highly-organised chaos that's associated with the genre. This article takes a look at some of the best math rock bands and albums over the past three decades, as well as some current and modern bands, from the genre's three great centres – the US, the UK, and Japan. But, first, for the uninitiated – let's talk about what math rock actually is. Math rock is defined by the use of complex rhythmic structures, especially the use of less-common time signatures (5 or 7), cross-rhythms (for example, guitars playing in 5 over drums and bass playing in 4), and unexpected starts, stops, and rhythmic changes. Why is called math rock? It's called math rock because those unusual 'metres,' or time signatures, are much more difficult to count than the 4/4 rhythms that are typical of rock music, and Western music in general. While math rock often features punk influences, it is more akin to jazz in the level of technical proficiency required to pull it off. This said, math rock differs from jazz in several significant ways. Math rock tends to be highly structured, with relatively little improvisation. And while math rock often features layered-up harmonies, it is generally harmonically simpler than jazz. More than any other genre, math rock has most in common with prog rock, and in quite a few cases, bands can fit into both categories. Math rock bands are generally comprised of typical rock music instrumentation. The influence of minimalist composers such as Steve Reich is evident in the use of repeated, looping, polyrhythmic patterns. On the other hand, far from the world of Reich, the venn diagram of math rock often intersects with post-rock, and even emo. Math rock is generally instrumental, with vocals taking a less prominent role, if they are present at all. So without further ado, let's jump in. Hailed by some as the 'saviours of rock' black midi have been making waves in the UK over the past couple of years with their chaotic blend of post-punk, experimental rock, and math rock. The London-based four-piece, who formed at the BRIT School, play with vocals, synths, guitar, bass, and drums, adding sax to their live shows. With the esteemed Morgan Simpson keeping the rhythms tight on drums, the band's experimental, mathy sketches blend with Georgie Greeps' strange, sometimes crooning, sometimes spoken vocals. Strap yourself in for their epic 2021 album Cavalcade – it's a wild ride in which the cacophonous mayhem of tracks like 'Hogwash and Balderdash' sit side-by-side with sweet, psychedelic moments in 'Diamond Stuff.' A ridiculous, brilliant odyssey. California-based Floral fall in the realm of twinkly, pretty, mathy, guitar-heavy math rock – their name rather fitting on account of the extremely flowery guitarwork. Opting for fairly clean electric guitar timbres, here you'll find an abundance of extended chords and hammer-ons, powered by energetic, constantly driving drums. The simplicity of just one guitar (although the complexity of the parts make it often sound like two or more) and just one drum kit make for a pure and in some ways thin sound. The thinness of the sound, however, does not make it feel in any way lacking, with constant rhythmic changes endlessly arresting the ear. These crunchy, beautiful sounds hold the satisfying beauty of a crisp autumn day. Check out their latest record, the 2020 Floral LP. Don Caballero are one of the most-celebrated math rock bands of all time, with their 2000 album American Don generally recognised as their most enduring work, and one of the all-time essential math rock albums. Clocking in at just under 56 minutes, the record is raw and punky, yet, at the same time, a flowing instrumental journey. Despite the hard drums and rough-around-the-edges production, American Don has an almost ambient, gentle feeling, ebbing and flowing through various, absorbing, hypnotic movements. Hammer-on guitars with layered up harmony and trancelike groove moments abound. The building, repeated cross-rhythm guitar patterns on 'Haven't Lived Afro Pop' are especially satisfying. All in all, the record is a case study in math rock brilliance. Explore their live recordings for a taste of the band's raw live energy. Hailing from Rennes, France, Totorro's most recent two albums, Home Alone (2014), and Come to Mexico (2016) are both immaculate examples of glistening, twinkly math rock. The instrumental four-piece call to mind the likes of the ultra-twinkly Explosions in the Sky, leaning less towards punk than some math rock bands do, and more towards the ambient. There are plenty of noisy moments, but in the case of Totorro, such moments feel carefully structured and controlled. Their math-ier moments are so tight and flawlessly executed that sudden changes in time signature or tempo simply wash over you. Listen to their two albums back-to-back for a good, long soak in lush distortion, and twinkly reverberating guitars. Although it has been some years since their last release, the band are still together. Clever Girl get a special mention on this list, not only for being amazing, but – full disclaimer and brag – because I happened to know these guys, and saw them play a couple of times. Formed in Sheffield around 2009, and named after an obscure Jurassic Park reference, their only ever record No Drum and Bass in Jazz Room was first released in 2010. Some months after the record was uploaded to YouTube, the algorithm drew more and more math-heads. Slowly but surely, the mostly unknown, moreorless disbanded Sheffield band built a cult following who couldn't get enough of their luscious, twinkly guitar music. With its beautiful interwoven guitar arrangements, overlayed with saxophone touches, the record is earnest and uplifting, with some truly beautiful moments. The coveted record was finally pressed to vinyl in 2018 – selling out immediately. The third press is available now via their Bandcamp. There have been rumours of a revival gig, from the band who are now mostly based in London. Watch out on their socials just in case it ever happens. Math rock bands can often boast a decent standard of technical proficiency, and for no one is this more true than Chon. Hailing from Oceanside, California, Chon have been players in the math rock game since 2008. The current configuration is three brothers – Mario Camarena (guitar), Nathan Camarena (drums), and Esiah Camarena (bass) – plus Erick Hansel on guitar. These guys pull off an endless stream of complex, weaving guitar riffs with amazing precision. A four-piece instrumental band, Chon are pretty much the epitome of what we love about the clever, pretty side of math rock. They're a big one for guitar lovers – tune in for proggy solos, rich chord progressions, and big satisfying whammy-bar action on their 2019 self-titled album. Formed way back in 2000, Toe are a Japanese math rock band that have toured extensively, including supporting the likes of the mighty Mogwai. Their 2021 live album DOKU-EN-KAI captures something of their live energy. The feeling of the record is sincere and somewhat DIY, leaning more towards the post-rock than the mathy side, with plenty of slow piano moments. A largely instrumental band, vocals feature pretty heavily on this latest record, and the intimacy of the recording is especially appealing after the lack of live music that we all experienced over the Covid era. Their stand out record remains the wordily-named 2012 album, the book about my idle plot on a vague anxiety, with its chiming guitars, clangy drums, and the lovely cosy lofi quality of the sound. Based in Leeds, UK, Slow Loris are a 4-piece comprised of drums, bass, and two guitars. Little-known, perhaps, in the math rock scene, the band are well-respected in the bustling Leeds music scene, delivering consistent top class technical wonders. Listen in to their 2021 EP Sounds Hoof for hard riffs, dense harmony, clever grooves, and surprisingly low bass tones. The rhythms in 'Hammer,' the opening track – combined with sensitive dynamics – throw you right off balance in the most satisfying way possible. Eclectic Japanese band LITE are known for their live performances and off-kilter rhythms. Their unusual instrumental blend of genres includes elements of math rock, synth, and even something like funk, with bass featuring prominently and guitar tapping galore. Check out their debut 2005 self-titled EP for a taste of their original sound, which fits more squarely in the math rock realm – recent years have seen them move in quite an electronic direction, producing film and TV soundtracks, with relatively few mathy elements. This band are certainly worth checking out, especially for lovers of musical chaos, but you've been warned – these wild sonic journeys are not for the faint-hearted! Genre-defying and influential, Battles pioneered the crossover of math rock with electronic music in their 2009 album Mirrored, released on the predominantly electronic label Warp Records. Formed in New York City in 2002 and led by the duo Ian Williams (also played with Don Caballero) and John Stanier, Battles combine sophisticated, complex rhythms, with catchy, almost childlike melodies. Always at the far-out, boundary-pushing end of math rock (although they transcend the label much of the time), Battles need to be on every math rock fan's radar. Their latest LP, the 2019 Juice B Crypts sees the pair blend a highly-structured and spacey if somewhat frantic sound with other innovative collaborators including the likes of Tune-Yards and Shabazz Palaces for some big, weird, head-nod grooves. Alpha Male Tea Party sit on the heavier end of the math rock spectrum as one of the most impressive British math rock bands on the scene today. Big extended chords, big distortion, and big crashing drums, Alpha Male Tea Party's powerful sound is brilliantly executed. Although generally harmonically concordant, the trio stray into metal territory at moments with some heavy chromatic riffs, as well as those big mathy grooves to make you lose your balance. Check out their 2017 album Health, and the 2020 Infinity Stare – two of the best new math rock albums of recent years. What a sound. Founded in Oxford, UK, TTNG – perhaps better known by their original name, This Town Needs Guns – named themselves, ironically, in reference to their historic hometown's low crime rate. Unsurprisingly, however, with their growing international fame, the ironic context of the name became lost and a name change became necessary. Naming aside, TTNG's delicate, earnest, twinkly music touches on indie, emo, and math rock, with their 2008 album Animals standing as their most-acclaimed record. The popular, tender record really lends itself to the acoustic rerelease, Animals Acoustic that they released a decade later. Based in Bristol, UK, the eminently quirky and at times comedic The Evil Usses produce wonky synthy groovy mathy proggy sonic slapstick – or, in their words, 'rocky notjazz' and 'jazzy notrock.' The deeply rhythmic instrumental four-piece comprises drums, guitar, bass, synth and sax. The development of their mindbending sound is documented through three ambitious albums – The Evil Usses (2015), Amateur Pro Wrestling (2017), and Muck (2019). Get on it for creepy discordant organ melodies interplaying with squelchy overdriven guitars and pounding groove after pounding groove. American Football are an emo math rock that skew heavily toward the Midwest emo side of the spectrum. Hailing from Illinois, the band was first founded in 1997. After a long hiatus, the band reformed in 2014 and are back on it to this day. Their acclaimed self-titled 1999 album (the first of three self-titled albums) remains a firm fan favourite, with song titles including 'But The Regrets Are Killing Me' and 'I'll See You When We're Both Not So Emotional' gesturing towards the record's heavy emo sentiment. Without a doubt, one of the most popular (and also one of the soppiest) bands in the genre. Led by guitarist and singer Yvette Young – originally a solo artist – Californian trio Covet first formed in 2014. Their soft, warm-sounding math rock is predominantly instrumental, constructed around Young's virtuosic, richly harmonic electric guitar and two-handed tapping style, and her occasional vocals. Despite the rhythmic complexity of Covet's compositions with their ever shifting time signatures and grooves, their music has that washy, twinkly math rock quality that means you could equally mosh or fall asleep to it depending on the volume and your mood at the time. Check out their 2020 album, technicolor. You might also like: Reddit and its partners use cookies and similar technologies to provide you with a better experience. By accepting all cookies, you agree to our use of cookies to deliver and maintain our services and site, improve the quality of Reddit, personalize Reddit content and advertising, and measure the effectiveness of advertising. By rejecting non-essential cookies, Reddit may still use certain cookies to ensure the proper functionality of our platform. For more information, please see our Cookie Notice and our Privacy Policy. Style of rock music Math rockStylistic origins Progressive rock indie rock post-hardcore minimal noise rock Cultural originsLate 1980s, United States and JapanDerivative forms Mathcore midwest emo post-rock[1] Other topics Experimental rock jazz fusion Steve Albini was an influence in the math rock genre. Math rock is a style of alternative and indie rock[2] with roots in bands such as King Crimson and Rush.[3][4] It is characterized by complex, atypical rhythmic structures (including irregular stopping and starting), counterpoint, odd time signatures, and extended chords. Bearing similarities to post-rock, math rock has been described as the "opposite side of the same coin". Opting for a "rockier" approach to songwriting and timbres, the style is often performed by smaller ensembles which emphasize the role of the guitar.[2] Polvo, Don Caballero, Slint, Bitch Magnet, Bastro and Ruins are considered by some to be the genre's pioneers.[5][6] The albums Red and Discipline by King Crimson,[7][8] as well as Spiderland by Slint,[9] are generally considered seminal influences on the development of math rock. The Canadian punk rock group Nomeansno (founded in 1979 and inactive as of 2016) have been cited by music critics as a "secret influence" on math rock,[10] predating much of the genre's development by more than a decade. An even more avant-garde group of the same era, Massacre, featured the guitarist Fred Frith and the bassist Bill Laswell. With some influence from the rapid-fire energy of punk, Massacre's influential music used complex rhythmic characteristics. Black Flag's 1984 album, My War, also included unusual polyrhythms.[11] Two songs on Yes' album Fragile (1971) have drawn attention – Paul Lester of Classic Rock writes that "Five Per Cent for Nothing" finds drummer Bill Bruford "inventing math rock",[12] while "Heart of the Sunrise" was described by Pitchfork's Chris Dahlen, Dominique Leone and Joe Tangari as "a deftly constructed proto math-rock epic".[13] Examples of modern math rock bands include Delta Sleep,[14] Covet,[15] Tricot,[16] and TTNG.[17] Math rock is typified by its rhythmic complexity, seen as mathematical in character by listeners and critics. While most rock music uses a 44 meter (however accented or syncopated), math rock makes use of more non-standard, frequently changing time signatures such as 54, 78, 118, or 138.[18] As in traditional rock, the sound is most often dominated by guitars and drums. However, drums play a greater role in math rock in providing driving, complex rhythms. Math rock guitarists make use of tapping techniques and loop pedals to build on these rhythms, as illustrated by songs like those of math rock supergroup Battles.[19][20] Lyrics are generally not the focus of math rock; the voice is treated as just another instrument in the mix. Often, vocals are not overdubbed, and are positioned less prominently, as in the recording style of Steve Albini.[citation needed] Many of math rock's best-known groups are entirely instrumental such as Don Caballero or Hella.[21][22] A significant intersection exists between math rock and emo, exemplified by bands such as Tiny Moving Parts[23] or American Football, whose sound has been described as "twinkly, mathy rock, a sound that became one of the defining traits of the emo scene throughout the 2000s".[24] The term began as a joke, but has since developed into the accepted name for the musical style. One advocate of this is Matt Sweeney, singer with Chavez, a group often linked to the math rock scene.[25] Despite this, not all critics see math rock as a serious sub-genre of rock, and some of the genre's most notable acts have disavowed the term.[26][27] See also: List of math rock groups This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources in this section. Unsourced material may be challenged and removed. (June 2021) (Learn how and when to remove this message) Math rock has a significant presence in Japan; the most prominent Japanese groups include Toe, Tricot, The Cabs, and Lite.[28] Other Japanese groups which incorporate math rock in their music include Ling Tosite Sigure,[29] Zazen Boys[28] and Mouse on the Keys[30] while the Japanoise scene features bands such as Ruins, Zeni Geva, and Boredoms.[28] Taiwan has a very small indie music scene, of which math rock is an emergent genre that is quickly gaining in popularity, with well-known math rock bands including Elephant Gym.[31] Polvo of Chapel Hill, North Carolina is often considered one of the household names in math rock, although the band members themselves have disavowed the categorization.[32] In California, power pop groups Game Theory and the Loud Family were both led by Scott Miller, who was said to "tinker with pop the way a born mathematician tinkers with numbers".[33] The origin of Game Theory's name is mathematical, suggesting a "nearly mathy" sound cited as "IQ rock."[34] Although the Seattle grunge scene was not widely associated with math rock, some consider Soundgarden to be one of few exceptions, due to the odd time signatures found in many of their songs.[35][relevant?] List of musical works in unusual time signatures Mathcore Music and mathematics Noise rock Post-hardcore Progressive metal ^ "Post-Rock Music Genre Overview". AllMusic. Retrieved December 24, 2016. ^ a b "Math Rock Music Genre Overview". AllMusic. Retrieved October 23, 2016. ^ Body, Alex E. (June 20, 2019). Rush : song by song. [Stroud, Gloucestershire, England]. ISBN 978-1-78155-729-7. OCLC 1088907970.{{cite book}}: CS1 maint: location missing publisher (link) ^ Progressive rock reconsidered. Holm-Hudson, Kevin. New York: Routledge. 2002. ISBN 0-8153-3714-0. OCLC 45890399.{{cite book}}: CS1 maint: others (link) ^ "Read An Exclusive Excerpt From The New Book 'Math Rock' By Jeff Gomez". Stereogum. April 4, 2024. Retrieved December 5, 2024. ^ Goldner, Sam. "Hella: Hold Your Horse Is (Deluxe Reissue)". Pitchfork. Retrieved December 5, 2024. ^ Sodomsky, Sam. "King Crimson Red". Condé Nast. Pitchfork. Retrieved February 14, 2020. ^ Leone, Dominique (November 21, 2002). "The Top 100 Albums of the 1980s". Pitchfork. Retrieved March 16, 2021. ^ Stablein, Lee. "Under The Influence #24: Lapsarian on "Spiderland" by Slint!". Metal Noise. Retrieved February 15, 2020. ^ "Live and Cuddly". Allmusic. Retrieved August 1, 2007. ^ Blush, Steven (2010). "Black Flag & SST: Thirsty and miserable". American Hardcore: A Tribal History. Los Angeles: Feral House. p. 72. ISBN 978-1-932595-98-7. ... its seven-minute Metal dirges and Fusion-style time signatures confused many fans. ^ Lester, Paul (November 27, 2015). "Yes: Fragile". Classic Rock. Retrieved August 6, 2024. ^ Dahlen, Chris; Leone, Dominique; Tangari, Joe (February 8, 2004). "Pitchfork: Album Reviews: Yes: The Yes Album / Fragile / Close to the Edge / Tales from Topographic Oceans / Relayer / Going for the One / Tormato / Drama / 90125". Pitchfork. Retrieved January 19, 2008. ^ "Delta Sleep Songs, Albums, Reviews, Bio & More..." AllMusic. Retrieved December 5, 2024. ^ Michael Astley-Brown (April 5, 2023). "Yvette Young names the 10(+) guitarists who shaped her sound". guitarworld. Retrieved December 6, 2024. ^ "Tricot Songs, Albums, Reviews, Bio & More | Al..." AllMusic. Retrieved December 5, 2024. ^ "This Town Needs Guns Songs, Albums, Reviews, B..." AllMusic. Retrieved December 5, 2024. ^ Progressive rock reconsidered. Holm-Hudson, Kevin. New York: Routledge. 2002. ISBN 0-8153-3714-0. OCLC 45890399.{{cite book}}: CS1 maint: others (link) ^ "Battles: Math rock made with room for improvisation". Washington Post. Retrieved December 5, 2024. Battles is rooted in the irregular time signatures and guitar tapping of math rock, but the experimental trio is constantly pushing sonic boundaries. ^ Leonard, Colin (June 7, 2011). "A math-rock supergroup loses its voice, and gets some soul". POLITICO. Retrieved December 5, 2024. ^ "Hella Biography by Bradley Torreano". AllMusic. Retrieved December 5, 2024. ^ "Don Caballero Biography by Steve Huey". AllMusic. Retrieved December 5, 2024. ^ "A Tiny Interview with Tiny Moving Parts". September 9, 2014. ^ "Never Meant: The Complete Oral History of American Football". NOISEY. February 2, 2016. Retrieved February 2, 2016. ^ LeMay, Matt (August 12, 2006). "Interview: Chavez". Pitchfork. Archived from the original on January 9, 2014. Retrieved July 17, 2015. [Math rock] was invented by a friend of ours as a derogatory term for a band me and James played in called Wider. But his whole joke is that he'd watch the song and not react at all, and then take out his calculator to figure out how good the song was. So he'd call it math rock, and it was a total diss, as it should be. ^ Kamp, David. (2005). The rock snob*s dictionary : an essential lexicon of rockological knowledge. Daly, Steven, 1960- (1st ed.). New York: Broadway Books. pp. 69. ISBN 0-7679-1873-8. OCLC 55990376. ^ Goldner, Sam. "Hella: Hold Your Horse Is (Deluxe Reissue)". Pitchfork. Retrieved December 5, 2024. ^ a b c "A Complete Guide to Japanese Math Rock". Tokyo Weekender. February 19, 2020. Retrieved July 27, 2021. ^ "10 indie bands from Asia you need to know". Time Out Hong Kong. November 27, 2019. Retrieved July 27, 2021. ^ "Mouse On The Keys live in KL | Music in Kuala Lumpur". Time Out Kuala Lumpur. August 3, 2015. Retrieved July 27, 2021. ^ Robson, Daniel (August 6, 2022). "INTERVIEW | Taiwan's Math Rock Heroes Elephant Gym: 'We Can All Resonate Together in Music' | JAPAN Forward". japan-forward.com. Retrieved October 22, 2022. ^ Redford, Chad. "You can call Polvo math rock, but the numbers just don't add up". Creative Loafing. Archived from the original on August 12, 2011. Retrieved October 3, 2016.{{cite web}}: CS1 maint: bot: original URL status unknown (link) ^ Schoemer, Karen (April 2, 1993). "Sounds Around Town: Miller Writ Loud". New York Times. Archived from the original on November 13, 2013. ^ Amar, Erin (July 2011). "Music: What Happened? Scott Miller on 50 Years of Singles in 258 Pages". Rocker Magazine. Archived from the original on November 1, 2013. ^ "WAS SOUNDGARDEN A MATH ROCK BAND?". feckingbahamas. July 9, 2019. Retrieved December 19, 2023. Dale, P. (2016). Anyone Can Do It: Empowerment, Tradition and the Punk Underground. Ashgate Popular and Folk Music Series. Taylor & Francis. p. pt237–. ISBN 978-1-317-18024-1. Eberhart, Max (September 29, 2016). "Calculating the Influence of Math Rock". The Santa Clara. Archived from the original on October 1, 2016. Retrieved October 3, 2016. Gomez, Jeff (2024). Math Rock. Bloomsbury. ISBN 979-8765103371. Math Rock at AllMusic Portal: Rock music Retrieved from " 2A guitar where the bridge extends beyond its usual stop For other uses, see Third bridge (disambiguation). This article needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.Find sources: "3rd bridge" – news · newspapers · books · scholar · JSTOR (November 2017) (Learn how and when to remove this message) Yuri Landman's Home Swinger, 12 string 3rd bridge zither Landman's 2006 Moodswinger, a 12 string overtone zither. Different possible shapes of a third bridge: "a common six-sided pencil [4mm contact], a round dowel [more focused contact], and an L-shaped bracket [even more fine]." The pencil creates, "a damping effect and also prevents energy from transferring across the bridge to the opposing string segment," with the dowel, "resulting in greater sustain and cross-string resonance," and the bracket, "offers even more sustain than a [round] dowel."[1] The 3rd bridge is an extended playing technique used on the electric guitar and other string instruments that allows a musician to produce distinctive timbres and overtones that are unavailable on a conventional string instrument with two bridges (a nut and a saddle). The timbre created with this technique is close to that of gamelan instruments like the bonang and similar Indonesian types of pitched gongs. A third bridge can be devised by inserting a rigid preparation object between the strings and the body or neck of the instrument, effectively dividing the string into distinct vibrating segments.[1] Third bridge instruments can be custom-made by experimental luthiers (as with guitars designed and played by Hans Reichel); modified from a non-third bridge instrument (as with conventional guitars modified with a pencil or screwdriver under the strings[2]); or may take advantage of design quirks of factory-built instruments (as with the Fender Jazzmaster, which has strings that continue from the "standard" bridge to the vibrato mechanism). Perhaps the best-known examples of this technique come from No Wave artists like Glenn Branca and Sonic Youth. The 3rd bridge technique has a physical connection with Pythagoras' monochord, because both function with the scale of harmonics. Many non-Western musical scales and musical instruments share these consonant just pitch relations. 3rd bridge preparation, the front and the back tone are in a reciprocal relationship and known as the bi-tone[1] On a standard guitar, the string is held above the soundboard by two nodes: the "nut" (near the headstock) and the "bridge" (near the player's right hand on a standard guitar). A player sounding a note on a standard guitar vibrates a single portion of the string (between the nut and the bridge or between their fretting finger and the bridge). In contrast, a third bridge divides the string into two pieces. When played at one part of a string, the opposed part can resonate in a subharmonic of the struck part, depending on a predictable mathematical ratio of the strings' lengths.[3] On harmonic positions the created multiphonic tone is consonant and increases in volume and sustain because of the reciprocal string resonance. The sound is comparable with the sound of bells or clocks ("yielding bell-like resonant sounds...enabled the guitar to more resemble percussive instruments like bells, gongs, and chimes"[4]). Landman published a clarifying 3rd bridge diagram related to this subject in 2012 (and a more elaborate version of this diagram in 2017).[5] In the 1930s, Harry Partch experimented with this technique on an instrument he called a Kithara that had movable glass rods. In the late 1960s, Keith Rowe made occasional use of third bridge guitars, inspiring a slew of experimental guitarists (notably Fred Frith) to use prepared guitars, inspired by John Cage's technique of the prepared piano. Classical guitar duo Elgart & Yates wrote a small book, Prepared Guitar Techniques, in which the technique is described and used in the added written musical piece, although not defined with the term 'third bridge' yet. From the 1970s, Hans Reichel's self-made and modified acoustic guitars sometimes featured third bridges. From the late 1970s, Glenn Branca adopted Partch's theory and used amplified string tables for some of his symphonies.[6] After being trained in the Branca orchestra, Sonic Youth applied their own guitars with screwdrivers, mainly in their early years. On their debut EP and the album Confusion is Sex this technique is often used.[7] Afterwards Bradford Reed developed the Pencilina. Reed plays mainly with drumsticks hitting the strings as well. "Nails" (2004) by Kaki King uses a third bridge set over the 16th fret and the technique has also been used by Fred Frith and Keith Rowe in addition to Branca, Moore, and Ranaldo.[1] The sound effect can be achieved without an additional 3rd bridge or extended tail piece. If the player presses on a fret (not behind it, as with standard fretting) and strums the string at the head side, the resonance comes through. Again, on harmonic positions the result is much louder and clearer than on the inharmonic fret positions. The 5th, 7th, 12th and 19th fret generate low-frequency humming overtones with the complementary tone, which is usually played in the regular way. This playing technique causes a smooth, round multiphonic sound. By muting the resonating part and letting it go after the pluck it sounds like an inverse recorded sound. On all other positions the tone is more undefined and comes with higher pitched lower volume overtones. With heavy distortion these tones can become more clear. The technique is widely used in many modern classical works on bowing instruments. The extended technique involves bowing the instrument on the afterlength, the short length of string behind the bridge. The tone is very high and squeaky. By playing the instrument at a string part behind the bridge, the opposed part starts to resonate. The tone is louder at harmonic relations of the bridge string length. On violins, the tone can be very high, even above the range of human hearing. Depending on the instrument, the pitch of the tones may or may not be perceived (cellos and double basses are more likely to produce recognizable pitches because of their longer strings). This technique is used extensively in Krzysztof Penderecki's Threnody to the Victims of Hiroshima. Another example is found in Ferde Grofé's Grand Canyon Suite where bowing behind the bridge in a violin cadenza represents a donkey's braying. Fender Jazzmaster Fender Jaguar SX SJM Teisco guitars with tailed bridges New Complexity Australian-made 3rd bridge guitars ^ a b c d Frengel, Mike (2017). The Unorthodox Guitar: A Guide to Alternative Performance Practice, p.115-7. Oxford. ISBN 9780199381852. "The shape of the bridge, or more precisely, the amount of contact it makes with the string as they pass over it, affects both sustain and cross-bridge resonance." ^ Bigsby's ENGR 407 blog (February 26, 2008): "Third Bridge Guitar", Bigsby.WordPress.com. Accessed: December 16, 2017. ^ "Moodswinger", OddMusic.com. Accessed: December 16, 2017. ^ Chick, Stevie (2009). Psychic Confusion: The Sonic Youth Story, [unpaginated]. Omnibus. ISBN 9780857120540. ^ "3rd Bridge Diagram", HyperCustom.nl. Accessed: December 16, 2017. ^ "Glenn Branca". Archived from the original on 2009-02-11. Retrieved 2008-12-06. ^ Edmondson, Jacqueline; ed. (2013). Music in American Life, p.1177. ABC-CLIO. ISBN 9780313393488. "They inserted screwdrivers between the fretboard and strings to make the guitar sound like clocks or chimes." Epand, Yuri (October 23, 2008). www.ezinearticles.com/?Adding-a-Twist-to-the-Electric-Guitar&id=1610340 -"Adding a Twist to the Electric Guitar", An article describing the technique at EzineArticle.com. Accessed: December 16, 2017. Retrieved from " 3 The following pages link to 3rd bridge External tools (link count transclusion count sorted list) · See help page for transcluding these entries Showing 50 items. View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500)Bagpipes (links | edit) Embouchure (links | edit) Fundamental frequency (links | edit) Glissando (links | edit) Harmonica (links | edit) Harmonic series (music) (links | edit) Just intonation (links | edit) Music (links | edit) Musical tuning (links | edit) No wave (links | edit) Piano (links | edit) Trombone (links | edit) Washtub bass (links | edit) Human voice (links | edit) Overtone (links | edit) Standing wave (links | edit) Musical composition (links | edit) Art rock (links | edit) Keyboard instrument (links | edit) String instrument (links | edit) Pizzicato (links | edit) Free improvisation (links | edit) Post-rock (links | edit) Overtone singing (links | edit) Microtonality (transclusion) (links | edit) Transverse wave (links | edit) Glenn Branca (links | edit) Pitch (music) (links | edit) Intelligent dance music (links | edit) Prepared piano (links | edit) Noise music (links | edit) Industrial music (links | edit) Free jazz (links | edit) Aleatoric music (links | edit) Gamelan (links | edit) Longitudinal wave (links | edit) Musical bow (links | edit) Musicality (links | edit) Fret (links | edit) Col legno (links | edit) Bow (music) (links | edit) Math rock (links | edit) Dynamics (music) (links | edit) Turntablism (links | edit) Sprechgesang (links | edit) Glitch (music) (links | edit) Avant-garde jazz (links | edit) Avant-garde music (links | edit) Krautrock (links | edit) Historically informed performance (links | edit) View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500) Retrieved from " WhatLinksHere/3rd_bridge"