



“my8-32%\$sampler” is a Max for Live patch built in Max/MSP—more than just a sampler, it’s a fifth-dimensional sampler. It features 8 channels, each equipped with pitch shifters and tuners, along with 32 sampling slots per channel. This allows users to automate sample changes seamlessly during live performances, unlocking deep sonic manipulation and real-time flexibility.





works  
as

# software developer

## Euler Lattice Lab

Start Frequency:  or Start Note:

Horizontal Ratio:  Vertical Ratio:

Generate Lattice

Save Chord

Euler Lattice Lab - is a JavaScript app that allows users to create harmonies based on just intonation, providing an intuitive and interactive way to explore pure harmonic relationships.

<https://parhambehzad.com/JSprojects/>

Euler Lattice Lab

Start Frequency: 

e.g., 440

 or Start Note: 

A2

Horizontal Ratio: 

5:4

Vertical Ratio: 

3:2

Generate Lattice

Hz	C6	E6	G#6	C7	E7	G#7	B7	D#8	G8	B8	D#9	G9	B9												
34	1864.28 Hz	1330.26 Hz	1662.82 Hz	2878.52 Hz	2598.16 Hz	3247.78 Hz	4859.62 Hz	5874.52 Hz	6343.15 Hz	7928.94 Hz	9911.18 Hz	12388.97 Hz	15486.22 Hz												
2000000000	3869835264:480000000	967458816:80000000	241864784:16000000	60466176:3200000	15116544:640000	3779136:128000	944784:25600	236196:5120	59049:1024	295245:4096	1476225:16384	7381125:65536	36985625:262144												
46	F5	A5	C#6	F6	A6	C#7	E7	C#7	C8	E8	G#8	C9	E9												
66	789.47 Hz	886.84 Hz	1188.55 Hz	1385.68 Hz	1732.10 Hz	2165.33 Hz	2786.41 Hz	3383.82 Hz	4228.77 Hz	5285.96 Hz	6487.45 Hz	8259.32 Hz	10324.14 Hz	12908.18 Hz											
800000000	1289945088:20000000	322486272:40000000	80621568:8000000	20155392:1600000	5038848:320000	1259712:64000	314928:12800	78732:2560	19683:512	98415:2048	492875:8192	2468375:32768	12381875:131072	61589375:524288											
146	A#4	D5	F#5	A#5	D6	F#6	A6	C#7	F7	A7	C#8	F8	A8	C9	E9	G#9									
500000000	429981696:10000000	107495424:20000000	26873856:4000000	6718464:800000	1679616:160000	419904:32000	104976:6400	26244:1280	6561:256	32805:1024	164825:4096	828125:16384	4188625:65536	28583125:262144	102515625:1048576	512578125:4194304									
706	D#4	G4	B4	D#5	G5	B5	D6	F#6	A#6	D7	F#7	A#7	D8	F8	A8	C#9	F9								
500000000	143327232:50000000	35831808:10000000	8957952:2000000	2239488:400000	559872:80000	139968:16000	34992:3200	8748:640	2187:128	10935:512	54675:2048	273375:8192	1366875:32768	6834375:131072	34171875:524288	178859375:2097152	854296875:8388608	42714843							
156	G#3	C4	E4	G#4	C5	E5	G5	B5	G6	B6	D#7	G7	A#7	D8	F#8	A#8									
250000000	47775744:25000000	11943936:5000000	2985984:1000000	746496:200000	186624:40000	46656:8000	11664:1600	2916:320	729:64	3645:256	18225:1024	91125:4096	455625:16384	2278125:65536	11399625:262144	56953125:1048576	284785625:4194304	14238281							
425000000	C#3	F3	A3	C#4	F4	A4	C5	E5	C6	E6	G#6	C7	D#7	G7	D#8										
250000000	140.14 Hz	175.18 Hz	218.97 Hz	273.72 Hz	342.14 Hz	427.68 Hz	534.60 Hz	668.25 Hz	835.31 Hz	1044.14 Hz	1305.18 Hz	1631.47 Hz	2039.34 Hz	2549.17 Hz	3186.46 Hz	3983.08 Hz	4978.85 Hz	6223							
56	+19.28e	+5.62e	-8.11e	-21.78e	-35.49e	-49.17e	+37.15e	+23.45e	+9.77e	-17.60e	-31.29e	-44.97e	-41.34e	+27.66e	+13.97e	+8.29e	+1.7e	6223							
250000000	15925248:12500000	3981312:2500000	995328:500000	248832:100000	62288:20000	15552:4000	3888:800	972:160	243:32	1215:128	6075:512	30375:2048	151875:8192	759375:32768	3796875:131072	18984375:524288	94921875:2097152	4746893							
116	F#2	A#2	D3	F#3	A#3	C#4	F4	A4	C5	F5	A#5	C#6	F6	A#6	C7	E7	G#7								
1250000	93.43 Hz	116.79 Hz	145.98 Hz	182.48 Hz	228.10 Hz	285.12 Hz	356.40 Hz	445.50 Hz	556.88 Hz	696.09 Hz	878.12 Hz	1087.65 Hz	1359.56 Hz	1699.45 Hz	2124.31 Hz	2655.39 Hz	3319.23 Hz	4145							
1e	+17.28e	+3.64e	-10.83e	-23.77e	-37.42e	-48.99e	+35.18e	+21.51e	+7.81e	-19.55e	-5.88e	-33.24e	-46.92e	+39.39e	+25.71e	+12.02e	-1.67e	4145							
12500000	5388416:6250000	1327104:1250000	331776:250000	82944:50000	20736:10000	5184:2000	1286:400	324:80	81:16	405:64	2025:256	10125:1024	50625:4096	253125:16384	1265625:65536	6328125:262144	31648625:1048576	1582831							
5625000	B1	D#2	G2	B2	D#3	F#3	A#3	D4	F#4	A#4	D5	F#5	A#5	C#6	F6	A#6	C7	D#7							
5625000	62.29 Hz	77.86 Hz	97.32 Hz	121.65 Hz	152.86 Hz	198.08 Hz	237.60 Hz	297.00 Hz	371.25 Hz	464.86 Hz	580.08 Hz	725.18 Hz	906.37 Hz	1132.97 Hz	1416.21 Hz	1770.26 Hz	2212.82 Hz	2766							
24	+1.23e	+1.71e	-12.84e	-25.69e	-39.35e	+46.99e	+33.25e	+19.58e	+5.89e	-7.81e	-21.51e	-33.29e	-48.88e	+37.43e	+23.75e	+18.06e	-3.62e	2766							
3625000	1769472:3125000	442368:625000	110592:125000	27648:25000	6912:5000	1728:1000	432:200	108:40	27:8	135:32	675:128	3375:512	16875:2048	84375:8192	421875:32768	2109375:131072	10546875:524288	5273437							
812500	E1	G#1	C2	E2	G#2	B2	D#3	G3	B3	D#4	G4	B4	D5	F#5	A#5	C#6	F6	A#6							
812500	41.52 Hz	51.90 Hz	64.88 Hz	81.10 Hz	101.38 Hz	126.78 Hz	158.40 Hz	198.00 Hz	247.45 Hz	309.38 Hz	386.72 Hz	483.40 Hz	604.25 Hz	755.31 Hz	944.14 Hz	1180.17 Hz	1475.21 Hz	1844							
64	+1.53e	+1.87e	-13.17e	-16.37e	-21.47e	-27.48e	+34.98e	+23.48e	+9.79e	-27.76e	-44.94e	-59.68e	-83.08e	+59.68e	+40.14e	+21.79e	+5.59e	1844							
8125000	589824:1562500	147456:125000	36864:62500	9216:12500	2304:2500	576:500	144:100	36:20	9:4	45:16	225:64	1125:256	5625:1024	28125:4096	140625:16384	703125:65536	3515625:262144	1757812							
706250	A0	C#1	F1	A1	C#2	E2	G#2	A2	C#3	E3	G#3	C4	E4	G4	B4	D5	G5	B5							
706250	27.68 Hz	36.40 Hz	45.98 Hz	54.07 Hz	67.52 Hz	84.48 Hz	105.60 Hz	132.00 Hz	165.00 Hz	206.25 Hz	257.81 Hz	322.27 Hz	402.83 Hz	503.54 Hz	629.43 Hz	786.78 Hz	983.48 Hz	1223							
76	+1.45e	-2.35e	-15.79e	-29.61e	-43.41e	-42.95e	+29.26e	+15.68e	+1.99e	-11.71e	-25.45e	-39.12e	+47.19e	+33.54e	+19.85e	+6.15e	-7.54e	1223							
906250	196688:781250	49152:156250	12288:31250	3872:6250	768:1250	192:250	48:50	27:264	12:10	15:8	75:32	375:128	1875:512	9375:2048	46875:8192	234375:32768	1171875:131072	585937							
1	D0	F#0	A#0	D1	F#1	A1	C#2	E2	A2	C#3	F3	A3	C4	E4	G4	B4	C5	E5							
93	18.45 Hz	23.07 Hz	28.84 Hz	36.94 Hz	45.86 Hz	56.32 Hz	70.40 Hz	88.80 Hz	110.80 Hz	137.50 Hz	171.88 Hz	214.84 Hz	268.55 Hz	335.69 Hz	419.62 Hz	524.52 Hz	655.65 Hz	819							
93	+9.87e	-3.85e	-18.17e	-31.66e	-45.28e	+41.06e	+27.26e	+13.63e	0.00e	-13.67e	-27.33e	-41.86e	+45.23e	+31.56e	+17.98e	+4.20e	-9.50e	819							
953125	65536:398625	16384:78125	4096:15625	1824:3125	458:625	115:125	29:264	16:25	4:5	1:1	5:4	25:16	125:64	625:256	3125:1024	15625:4096	78125:16384	398625:65536	195312						