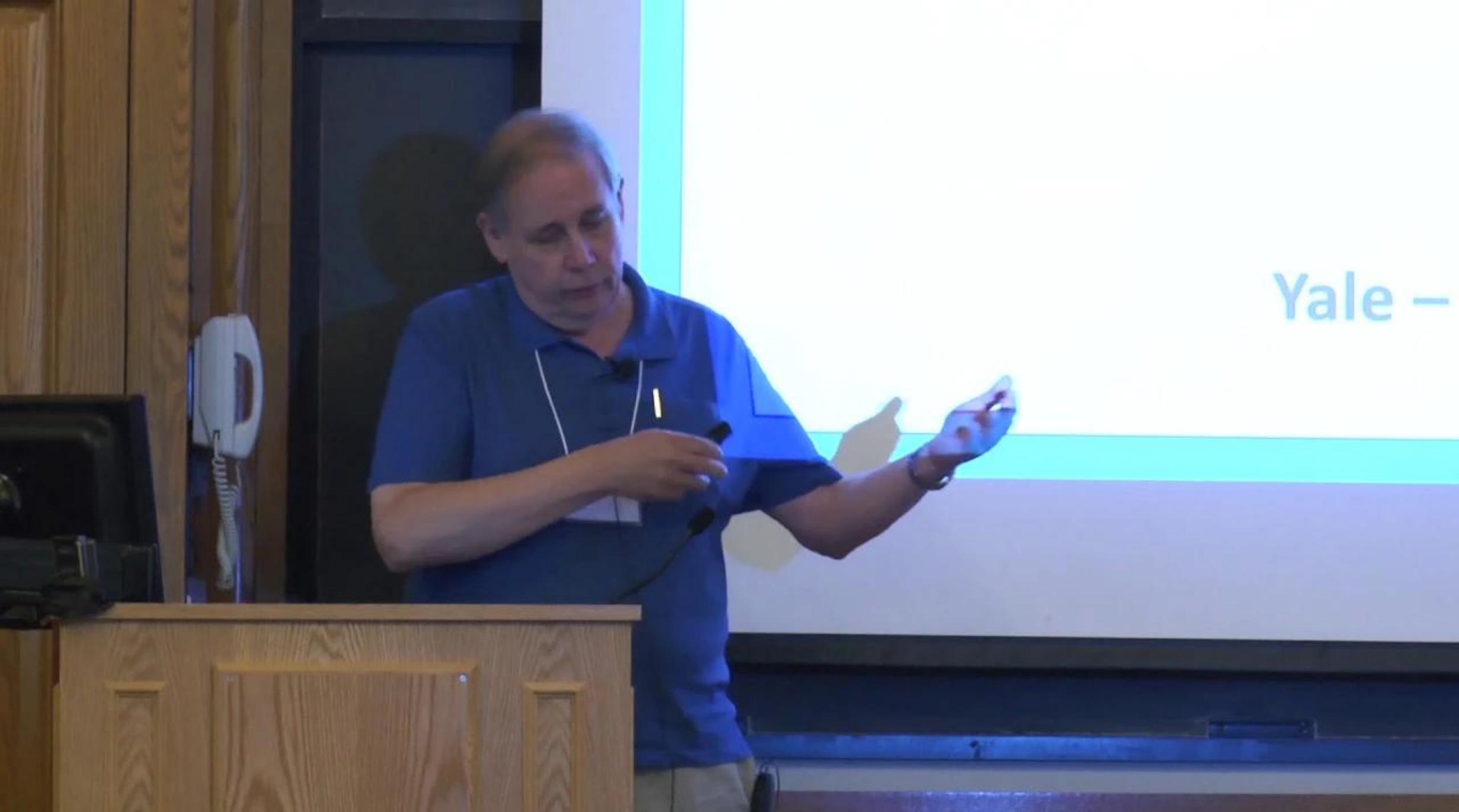1
00:00:08,570 --> 00:00:04,510
[Applause]

2
00:00:12,709 --> 00:00:08,580
good morning still morning right barely

3
00:00:16,939 --> 00:00:12,719
last year the SSC meeting Dean Radin did

4
00:00:19,010 --> 00:00:16,949
a presentation about some data he had

5
00:00:23,599 --> 00:00:19,020
collected with Bill and a couple other

6
00:00:26,150 --> 00:00:23,609
guys in a Faraday cage at ions and I

7
00:00:28,490 --> 00:00:26,160
thought that was pretty interesting so

8
00:00:29,779 --> 00:00:28,500
after the their talk was over I went up

9
00:00:32,209 --> 00:00:29,789
and I talked to Dana and I talked to

10
00:00:33,889 --> 00:00:32,219
Bill and I said you know I do signal

11
00:00:35,240 --> 00:00:33,899
processing in real life I'd like to get

12
00:00:37,729 --> 00:00:35,250
the stage and look at it is that okay

13
00:00:39,950 --> 00:00:37,739

and those of you know Bill will

14
00:00:41,450 --> 00:00:39,960
understand when he when I tell you his

15
00:00:44,660 --> 00:00:41,460
answer was of course I would love to

16
00:00:46,279 --> 00:00:44,670
exploit you and so he you know gave me

17
00:00:49,459 --> 00:00:46,289
the date our Dean gave me the data and

18
00:00:52,189 --> 00:00:49,469
so we're going to talk about some of

19
00:00:55,340 --> 00:00:52,199
that today when ding looked at the data

20
00:00:58,639 --> 00:00:55,350
before he did find some interesting

21
00:01:01,939 --> 00:00:58,649
differences between control signals and

22
00:01:05,090 --> 00:01:01,949
and healing scenarios but nothing that

23
00:01:08,000 --> 00:01:05,100
was seem to be very systematic although

24
00:01:10,810 --> 00:01:08,010
they did as bill mentioned discover that

25
00:01:13,429 --> 00:01:10,820
if they play these signals as audio for

26
00:01:15,020 --> 00:01:13,439
sensitives intuitive people they could

27
00:01:19,210 --> 00:01:15,030
blindly tell the difference between the

28
00:01:21,499 --> 00:01:19,220
two so that was interesting as well

29
00:01:23,600 --> 00:01:21,509
saga continues what we're going to do

30
00:01:25,280 --> 00:01:23,610
now I'm going to show you some work that

31
00:01:28,010 --> 00:01:25,290
I've been doing with the same original

32
00:01:31,160 --> 00:01:28,020
data that was collected before with a

33
00:01:34,280 --> 00:01:31,170
very high spectral resolution and also

34
00:01:37,090 --> 00:01:34,290
some careful searches for short term

35
00:01:39,859 --> 00:01:37,100
interesting things in the temporal data

36
00:01:42,800 --> 00:01:39,869
and some results that hopefully will be

37
00:01:44,060 --> 00:01:42,810
interesting quickly through the

38
00:01:46,429 --> 00:01:44,070

background bill kind of covered this

39
00:01:49,069 --> 00:01:46,439
already the original data there were 38

40
00:01:53,060 --> 00:01:49,079
transducers 33 magnetometers XY and z

41
00:01:54,800 --> 00:01:53,070
axes so that's 33 Cement sensors and I

42
00:01:56,569 --> 00:01:54,810
don't know where the 51 always comes

43
00:01:58,520 --> 00:01:56,579
from when ding gave me the data he said

44
00:02:00,039 --> 00:01:58,530
I have 20 recordings it gave me 20

45
00:02:05,230 --> 00:02:00,049
ultimately to work with

46
00:02:07,480 --> 00:02:05,240
okay that's fair the sampling was 44 20

47
00:02:09,339 --> 00:02:07,490
kilohertz which is the standard sampling

48
00:02:11,199 --> 00:02:09,349
rate for CD audio which made it very

49
00:02:13,030 --> 00:02:11,209
easy for them to play these signals that

50
00:02:17,250 --> 00:02:13,040
were not originally audio as audio

51
00:02:20,080 --> 00:02:17,260
signals 24-bit resolution this picture

52
00:02:21,670 --> 00:02:20,090
bill already had up so I won't spend any

53
00:02:23,410 --> 00:02:21,680
time on that shows the inside of the

54
00:02:27,339 --> 00:02:23,420
Faraday cage with all the little sensors

55
00:02:29,110 --> 00:02:27,349
sprinkled around and of the 20 sessions

56
00:02:31,210 --> 00:02:29,120
that I work with they were reported

57
00:02:33,610 --> 00:02:31,220
there are some that are control sessions

58
00:02:36,220 --> 00:02:33,620
where there is nothing in the box there

59
00:02:38,259 --> 00:02:36,230
are some where there are a healer and a

60
00:02:40,660 --> 00:02:38,269
patient both in at the same time as

61
00:02:42,970 --> 00:02:40,670
doing healing work there are some where

62
00:02:45,550 --> 00:02:42,980
there are healers charging cotton or

63
00:02:47,199 --> 00:02:45,560

other artifacts and there are some where

64
00:02:48,610 --> 00:02:47,209
there's a patient in artifacts but no

65
00:02:52,809 --> 00:02:48,620
healer presence so we have all those

66
00:02:54,759 --> 00:02:52,819
scenarios to look at the to analysis

67
00:02:56,410 --> 00:02:54,769
methods are pretty straightforward that

68
00:02:57,580 --> 00:02:56,420
I'm going to talk to you about spectral

69
00:02:59,770 --> 00:02:57,590
analysis

70
00:03:01,690 --> 00:02:59,780
most of these FFT in fact I think all of

71
00:03:04,360 --> 00:03:01,700
them are going to show you cover 302nd

72
00:03:06,370 --> 00:03:04,370
records the fundamental frequency

73
00:03:08,470 --> 00:03:06,380
resolution you can get is the reciprocal

74
00:03:10,599 --> 00:03:08,480
of that so it's well below one hundredth

75
00:03:12,340 --> 00:03:10,609
of a Hertz which allows you my mother

76
00:03:13,809 --> 00:03:12,350
things look very closely at very low

77
00:03:16,090 --> 00:03:13,819
frequencies which will turn out the

78
00:03:18,840 --> 00:03:16,100
important and then a couple of

79
00:03:22,300 --> 00:03:18,850
approaches to the temporal analysis

80
00:03:24,520 --> 00:03:22,310
first I looked at histograms of signal

81
00:03:26,020 --> 00:03:24,530
amplitude where you basically just say

82
00:03:27,699 --> 00:03:26,030
okay how many signals were this big how

83
00:03:30,129 --> 00:03:27,709
many or this big I made this big of the

84
00:03:32,680 --> 00:03:30,139
samples I mean sort dozen depends to get

85
00:03:35,280 --> 00:03:32,690
a probability distribution and then also

86
00:03:37,629 --> 00:03:35,290
searching for anything short term

87
00:03:39,129 --> 00:03:37,639
anomalies anything that looks strange or

88
00:03:43,690 --> 00:03:39,139

different about the time of the lane

89
00:03:45,490 --> 00:03:43,700
signal in the beginning I looked at two

90
00:03:47,800 --> 00:03:45,500
recordings Dean said I'm just going to

91
00:03:50,349 --> 00:03:47,810
give you two of these one as a healing

92
00:03:51,159 --> 00:03:50,359
case one it's a control case I'm not

93
00:03:52,780 --> 00:03:51,169
going to tell you what you want to

94
00:03:55,390 --> 00:03:52,790
switch go look at the data and tell us

95
00:03:57,009 --> 00:03:55,400
what you see so I did that and we did

96
00:03:59,259 --> 00:03:57,019
see some interesting differences between

97
00:04:01,210 --> 00:03:59,269
the two when I looked at it I had filed

98
00:04:05,020 --> 00:04:01,220
17 file 18 I don't know which is which

99
00:04:07,569 --> 00:04:05,030
turned out afterwards 18 was the healing

100
00:04:10,030 --> 00:04:07,579
case were billing two other guys were

101
00:04:10,970 --> 00:04:10,040
charging cotton and then the control

102
00:04:13,100 --> 00:04:10,980
case

103
00:04:14,559 --> 00:04:13,110
it's nothing in the Faraday cage except

104
00:04:16,909 --> 00:04:14,569
a crystal I think sitting on the table

105
00:04:18,860 --> 00:04:16,919
and then later they gave me the rest of

106
00:04:20,240 --> 00:04:18,870
the recordings or at least I hadn't

107
00:04:21,979 --> 00:04:20,250
ended up with 20 maybe Dean's still

108
00:04:24,320 --> 00:04:21,989
holding on the 31 I don't know about

109
00:04:26,360 --> 00:04:24,330
that but and then there's a whole

110
00:04:30,920 --> 00:04:26,370
variety of pealing control scenarios to

111
00:04:32,210 --> 00:04:30,930
talk about so there are a number of ways

112
00:04:34,219 --> 00:04:32,220
I could go through this

113
00:04:35,570 --> 00:04:34,229

I thought the journey itself was

114
00:04:37,250 --> 00:04:35,580
interesting so I'm gonna take you

115
00:04:41,360 --> 00:04:37,260
through this kind of chronologically in

116
00:04:42,680 --> 00:04:41,370
the order that things develop we're

117
00:04:45,230 --> 00:04:42,690
going to first talk about the histogram

118
00:04:47,360 --> 00:04:45,240
okay and then look a little bit at

119
00:04:48,700 --> 00:04:47,370
spectral analysis of the signal

120
00:04:51,409 --> 00:04:48,710
amplitudes

121
00:04:53,270 --> 00:04:51,419
I'm sorry spectrum spectral analysis of

122
00:04:54,500 --> 00:04:53,280
the signals and then temporal analysis

123
00:04:56,390 --> 00:04:54,510
of the signals and then try to summarize

124
00:04:58,370 --> 00:04:56,400
the results so I want to come back to

125
00:05:02,420 --> 00:04:58,380
this slide a few times but we're going

126
00:05:05,180 --> 00:05:02,430
to first talk about the histograms so if

127
00:05:08,510 --> 00:05:05,190
you look at these two bar charts the one

128
00:05:10,730 --> 00:05:08,520
closest to me here you'll see two bar

129
00:05:13,250 --> 00:05:10,740
charts side-by-side there's a red or

130
00:05:14,510 --> 00:05:13,260
blue or purple my daughter's tell me I

131
00:05:16,070 --> 00:05:14,520
can't tell the difference between blue

132
00:05:18,050 --> 00:05:16,080
and purple very well so it's the one

133
00:05:20,600 --> 00:05:18,060
that's not yellow is the control case

134
00:05:21,110 --> 00:05:20,610
and the yellow is healing data so over

135
00:05:22,490 --> 00:05:21,120
here

136
00:05:24,080 --> 00:05:22,500
well I got some histograms that look

137
00:05:25,879 --> 00:05:24,090
like this which is what you'd expect if

138
00:05:27,170 --> 00:05:25,889

there's really nothing going on almost

139
00:05:30,890 --> 00:05:27,180
the same thing whether it's a healing

140
00:05:33,140 --> 00:05:30,900
scenario or a control scenario but also

141
00:05:34,610 --> 00:05:33,150
got some like you see on the other side

142
00:05:37,610 --> 00:05:34,620
which at first I thought was very

143
00:05:38,870 --> 00:05:37,620
interesting here it looks as though

144
00:05:40,850 --> 00:05:38,880
there's something very different about

145
00:05:43,370 --> 00:05:40,860
the healing case as opposed to the

146
00:05:45,440 --> 00:05:43,380
control case however it turned out that

147
00:05:47,120 --> 00:05:45,450
what was going on was there is some 60

148
00:05:49,100 --> 00:05:47,130
Hertz home in that dataset that was

149
00:05:52,339 --> 00:05:49,110
creating these larger excursions in the

150
00:05:53,409 --> 00:05:52,349
dataset so that turned out to be kind of

151
00:05:57,469 --> 00:05:53,419
a dead end

152
00:05:58,300 --> 00:05:57,479
gave up on that so histograms didn't

153
00:06:00,620 --> 00:05:58,310
lead anywhere

154
00:06:03,170 --> 00:06:00,630
spectral analysis was a little more

155
00:06:05,870 --> 00:06:03,180
interesting we're going to talk about

156
00:06:10,040 --> 00:06:05,880
two things that we found one is sort of

157
00:06:12,770 --> 00:06:10,050
a general elevation of frequencies in

158
00:06:15,589 --> 00:06:12,780
the spectral frequency range below five

159
00:06:16,629 --> 00:06:15,599
Hertz it will turn out between control

160
00:06:21,550 --> 00:06:16,639
cases

161
00:06:23,860 --> 00:06:21,560
narrow band only about one Hertz wide

162
00:06:26,260 --> 00:06:23,870
elevation the difference between we see

163
00:06:30,520 --> 00:06:26,270

sometimes between human cases and the

164
00:06:33,369 --> 00:06:30,530
control cases first I'm going to show

165
00:06:35,559 --> 00:06:33,379
you the whole spectrum this is since we

166
00:06:36,760 --> 00:06:35,569
had a 44 so kilohertz sampling right

167
00:06:39,129 --> 00:06:36,770
this I don't know that you can read the

168
00:06:40,779 --> 00:06:39,139
scale but goes up to 22 kilohertz this

169
00:06:42,369 --> 00:06:40,789
picture looks pretty much all red it's

170
00:06:44,260 --> 00:06:42,379
just because I told the computer plot

171
00:06:45,490 --> 00:06:44,270
blue curve then plot the red curve and

172
00:06:47,499 --> 00:06:45,500
the blue and the red curves fall almost

173
00:06:50,260 --> 00:06:47,509
exactly on top of each other so you just

174
00:06:51,580 --> 00:06:50,270
see red but if you expand the scale and

175
00:06:52,990 --> 00:06:51,590
you look at all those little Peaks

176
00:06:55,570 --> 00:06:53,000
across there you see almost no

177
00:06:57,129 --> 00:06:55,580
difference so that looks like there's no

178
00:06:59,350 --> 00:06:57,139
difference between the healing case in

179
00:07:02,439 --> 00:06:59,360
the control case this is the file 17 and

180
00:07:04,749 --> 00:07:02,449
18 I started with except if you look at

181
00:07:06,790 --> 00:07:04,759
the very very low frequencies this goes

182
00:07:09,580 --> 00:07:06,800
from 0 to 5 Hertz so this is the very

183
00:07:11,170 --> 00:07:09,590
low frequency range and you'll see now

184
00:07:14,019 --> 00:07:11,180
we've got a significant difference

185
00:07:16,390 --> 00:07:14,029
showing up between the red which is the

186
00:07:18,070 --> 00:07:16,400
healing case and the blue which is the

187
00:07:20,230 --> 00:07:18,080
control case it's a pretty big

188
00:07:23,140 --> 00:07:20,240

difference the vertical scale if you can

189
00:07:25,719 --> 00:07:23,150
see it or not is about 20 DB so that's

190
00:07:27,369 --> 00:07:25,729
in that frequency range that's a factor

191
00:07:29,140 --> 00:07:27,379
of 10 and amplitude or a hundred and

192
00:07:31,329 --> 00:07:29,150
power so there's a lot of difference

193
00:07:35,230 --> 00:07:31,339
there turned out this was pretty

194
00:07:37,869 --> 00:07:35,240
consistent for all eleven magnetometers

195
00:07:40,839 --> 00:07:37,879
in the Y Channel we saw differences like

196
00:07:42,969 --> 00:07:40,849
this it doesn't happen in all the cases

197
00:07:46,140 --> 00:07:42,979
doesn't happen in the other axes here is

198
00:07:48,459 --> 00:07:46,150
the x axis of the same magnetometer and

199
00:07:50,709 --> 00:07:48,469
you can see red and blue pretty much

200
00:07:53,529 --> 00:07:50,719
right on top of each other so we had

201
00:07:54,999 --> 00:07:53,539
cases like this and we had cases where

202
00:07:57,010 --> 00:07:55,009
there's a big difference we never had a

203
00:08:00,249 --> 00:07:57,020
case the other way around where the blue

204
00:08:02,170 --> 00:08:00,259
is above the red this is a different

205
00:08:04,149 --> 00:08:02,180
magnetometer another significant

206
00:08:05,920 --> 00:08:04,159
difference between the two channels this

207
00:08:12,309 --> 00:08:05,930
is magnetometer seven here's

208
00:08:13,920 --> 00:08:12,319
magnetometer three so a lot of those now

209
00:08:16,990 --> 00:08:13,930
this is a slightly different scenario

210
00:08:18,550 --> 00:08:17,000
the others I showed you were healer

211
00:08:21,519 --> 00:08:18,560
charging Cotton's was the healing case

212
00:08:24,999 --> 00:08:21,529
in this case there is no healer this was

213
00:08:26,530 --> 00:08:25,009

charged cotton with a patient in the

214
00:08:31,850 --> 00:08:26,540
Faraday cage for the

215
00:08:34,040 --> 00:08:31,860
so here we have charts cotton showing an

216
00:08:39,860 --> 00:08:34,050
elevation with a patient versus the

217
00:08:42,140 --> 00:08:39,870
control case and then there was one

218
00:08:44,360 --> 00:08:42,150
other scenario that came up where there

219
00:08:46,100 --> 00:08:44,370
was a they took a 20 minute recording

220
00:08:47,570 --> 00:08:46,110
and they told the healers for five

221
00:08:49,460 --> 00:08:47,580
minutes just rest and then for five

222
00:08:51,890 --> 00:08:49,470
minutes heal for five minutes rest for 5

223
00:08:54,110 --> 00:08:51,900
minutes heal I broke that up into five

224
00:08:56,000 --> 00:08:54,120
minute segments of course so we could

225
00:09:00,800 --> 00:08:56,010
compare the healing periods with the

226
00:09:02,780 --> 00:09:00,810
patrol periods and in this case it turns

227
00:09:04,760 --> 00:09:02,790
out that the elevated spectra always

228
00:09:06,680 --> 00:09:04,770
happened in the wrist periods don't know

229
00:09:09,940 --> 00:09:06,690
what that means that's what we saw

230
00:09:12,830 --> 00:09:09,950
here's one example of a narrow band

231
00:09:15,860 --> 00:09:12,840
spectral elevation case red versus the

232
00:09:18,230 --> 00:09:15,870
control case let's take a look at some

233
00:09:22,040 --> 00:09:18,240
of the temporal data there's two kinds

234
00:09:23,360 --> 00:09:22,050
of interesting events there one I call

235
00:09:25,580 --> 00:09:23,370
ringing bursts I'm going to show you

236
00:09:29,210 --> 00:09:25,590
some examples of this they typically

237
00:09:32,150 --> 00:09:29,220
last a few seconds they have ringing

238
00:09:34,070 --> 00:09:32,160

oscillations that pop up they almost

239
00:09:37,430 --> 00:09:34,080
never happen unless there is a patient

240
00:09:39,410 --> 00:09:37,440
there can be healers a patient or there

241
00:09:41,620 --> 00:09:39,420
can be an artifact in a patient but if

242
00:09:44,780 --> 00:09:41,630
the patient's not there we don't see it

243
00:09:46,910 --> 00:09:44,790
and then the other example is what I

244
00:09:49,910 --> 00:09:46,920
call the impulse bursts these are very

245
00:09:51,850 --> 00:09:49,920
short they don't oscillate they tended

246
00:09:53,810 --> 00:09:51,860
to pop up in lots of recordings and

247
00:09:56,330 --> 00:09:53,820
probably don't mean anything

248
00:09:59,180 --> 00:09:56,340
so they're probably just various noise

249
00:10:02,630 --> 00:09:59,190
so here is a ringing burst with some

250
00:10:06,350 --> 00:10:02,640
oscillations here's another example of

251
00:10:07,910 --> 00:10:06,360
those another couple of those here is an

252
00:10:11,810 --> 00:10:07,920
impulse burst which you can see looks

253
00:10:16,250 --> 00:10:11,820
very different and so let's try to

254
00:10:18,800 --> 00:10:16,260
summarize some of that first of all all

255
00:10:21,560 --> 00:10:18,810
the interesting events happened in the

256
00:10:23,210 --> 00:10:21,570
magnetometer channels on any others we

257
00:10:25,100 --> 00:10:23,220
didn't see any of these interesting

258
00:10:26,960 --> 00:10:25,110
events when the empty one with an empty

259
00:10:29,300 --> 00:10:26,970
box which is kind of reassuring I think

260
00:10:31,760 --> 00:10:29,310
almost no events when they're only our

261
00:10:33,200 --> 00:10:31,770
box so there's really three scenarios of

262
00:10:35,450 --> 00:10:33,210
interest there's a healer and a patient

263
00:10:37,620 --> 00:10:35,460

or there is a nahi ler working on an

264
00:10:41,790 --> 00:10:37,630
artifact or there is an artist

265
00:10:43,500 --> 00:10:41,800
in a patient this is just a schematic

266
00:10:45,420 --> 00:10:43,510
you can see the numbers sprinkled around

267
00:10:48,180 --> 00:10:45,430
those are just having to do with which

268
00:10:50,970 --> 00:10:48,190
sensor channel so we record an event we

269
00:10:53,760 --> 00:10:50,980
can figure out where it where reported

270
00:10:56,100 --> 00:10:53,770
so we're going to tabulate are the

271
00:10:58,160 --> 00:10:56,110
events supported near the healer or near

272
00:11:00,360 --> 00:10:58,170
the patient or in the table in between

273
00:11:01,830 --> 00:11:00,370
and there's three kinds of events to

274
00:11:03,390 --> 00:11:01,840
talk about the general spectral

275
00:11:06,150 --> 00:11:03,400
elevation I showed you quite a few of

276
00:11:08,130 --> 00:11:06,160
those or the narrowband elevation we had

277
00:11:10,140 --> 00:11:08,140
one picture I showed you but there are a

278
00:11:15,720 --> 00:11:10,150
lot of those or these temporal ringing

279
00:11:18,320 --> 00:11:15,730
bursts this tabulates the cases were we

280
00:11:21,450 --> 00:11:18,330
had a healer and a patient both present

281
00:11:23,310 --> 00:11:21,460
most of the time this general spectral

282
00:11:26,190 --> 00:11:23,320
elevation seemed to happen on the healer

283
00:11:28,830 --> 00:11:26,200
side two to one in this case the near

284
00:11:30,870 --> 00:11:28,840
been spectral elevations all happened in

285
00:11:33,330 --> 00:11:30,880
this scenario on the patient's side and

286
00:11:35,460 --> 00:11:33,340
most of the temporal bursts happen on

287
00:11:37,680 --> 00:11:35,470
the patient's side I thought this was

288
00:11:39,300 --> 00:11:37,690

interesting you'd think maybe you would

289
00:11:41,220 --> 00:11:39,310
think that you'd be recording things

290
00:11:43,800 --> 00:11:41,230
around the healer who's doing something

291
00:11:46,290 --> 00:11:43,810
but maybe if it's all happening from the

292
00:11:48,150 --> 00:11:46,300
patient as bill suggested that explains

293
00:11:49,920 --> 00:11:48,160
why we're recording things some of these

294
00:11:54,060 --> 00:11:49,930
events over on the patient's side

295
00:11:56,040 --> 00:11:54,070
instead this is another scenario where

296
00:12:00,210 --> 00:11:56,050
we had a healer and artifact but no

297
00:12:02,190 --> 00:12:00,220
patient again two to one or so most of

298
00:12:04,620 --> 00:12:02,200
the general elevations happen on the

299
00:12:06,300 --> 00:12:04,630
healer side the narrowband spectral

300
00:12:07,530 --> 00:12:06,310
elevations still happening on the

301
00:12:09,510 --> 00:12:07,540
patient's side even though there's not a

302
00:12:11,970 --> 00:12:09,520
patient there don't know what that means

303
00:12:13,470 --> 00:12:11,980
and one temporal burst that happened on

304
00:12:15,360 --> 00:12:13,480
the healer side I think this is the only

305
00:12:17,970 --> 00:12:15,370
event that we saw where there was a

306
00:12:20,580 --> 00:12:17,980
burst without a patient president and

307
00:12:23,670 --> 00:12:20,590
then this is the last of the scenarios

308
00:12:25,410 --> 00:12:23,680
we have patient and artifact only one of

309
00:12:28,080 --> 00:12:25,420
the low-frequency spectral elevations

310
00:12:30,240 --> 00:12:28,090
seem to be on the patient's side the

311
00:12:31,910 --> 00:12:30,250
narrowband elevation we had four of

312
00:12:33,990 --> 00:12:31,920
those and they're on the healer side

313
00:12:36,840 --> 00:12:34,000

even though there's no healer present

314
00:12:39,840 --> 00:12:36,850
and two to one for temporal versus on

315
00:12:41,460 --> 00:12:39,850
the patient side so I don't think we

316
00:12:43,770 --> 00:12:41,470
have anything we can call conclusions

317
00:12:44,580 --> 00:12:43,780
but there were maybe some interesting

318
00:12:46,980 --> 00:12:44,590
trends here

319
00:12:49,620 --> 00:12:46,990
the temporal bursts with ringing seem to

320
00:12:50,420 --> 00:12:49,630
happen mostly near the patient whether

321
00:12:53,750 --> 00:12:50,430
there's a

322
00:12:55,370 --> 00:12:53,760
president or artifact president they

323
00:12:56,690 --> 00:12:55,380
happen around the patient they almost

324
00:12:59,780 --> 00:12:56,700
never happened when there isn't a

325
00:13:01,700 --> 00:12:59,790
patient the near abandon spectral

326
00:13:04,579 --> 00:13:01,710
elevations also seemed to happen mostly

327
00:13:06,560 --> 00:13:04,589
around the patient and the general

328
00:13:08,329 --> 00:13:06,570
low-frequency elevation pictures that I

329
00:13:11,360 --> 00:13:08,339
showed you quite a few of mostly seemed

330
00:13:13,670 --> 00:13:11,370
to happen around the healer either when

331
00:13:15,920 --> 00:13:13,680
they're charging cotton or charging some

332
00:13:17,870 --> 00:13:15,930
artifact or when there's a healer and

333
00:13:23,090 --> 00:13:17,880
the patient present but they're in a

334
00:13:25,550 --> 00:13:23,100
rest period want to thank bill for

335
00:13:28,070 --> 00:13:25,560
letting me do the work Dean for

336
00:13:30,680 --> 00:13:28,080
providing the data and some helpful

337
00:13:32,720 --> 00:13:30,690
comments along the way the in will get

338
00:13:38,060 --> 00:13:32,730

Charitable Trusts who understand

339
00:13:45,190 --> 00:13:38,070
provided the original funding that's

340
00:13:53,120 --> 00:13:49,100
the Faraday cage there is a very small

341
00:13:59,870 --> 00:13:53,130
enclosed space is there any kind of air

342
00:14:02,449 --> 00:13:59,880
conditioning or temperature control the

343
00:14:05,390 --> 00:14:02,459
reason I ask is that I have recorded

344
00:14:09,710 --> 00:14:05,400
similar signals to your ringing burst

345
00:14:11,390 --> 00:14:09,720
when a fan or a motor turns on so I'm

346
00:14:13,579 --> 00:14:11,400
wondering if there's any kind of air

347
00:14:15,320 --> 00:14:13,589
conditioning that might be turning off

348
00:14:25,460 --> 00:14:15,330
and on near a patient who is actually

349
00:14:27,680 --> 00:14:25,470
heating hello I'm just wondering if

350
00:14:33,140 --> 00:14:27,690
you've done any sort of statistical

351
00:14:36,620 --> 00:14:33,150
analysis to try to evaluate the

352
00:14:38,569 --> 00:14:36,630
possibility or preferably refute the

353
00:14:41,360 --> 00:14:38,579
possibility that these various types of

354
00:14:46,990 --> 00:14:41,370
events the ringing bursts the impulse

355
00:14:50,150 --> 00:14:47,000
bursts and so forth are simply occurring

356
00:14:52,490 --> 00:14:50,160
occurring at at random and they've

357
00:14:55,280 --> 00:14:52,500
happened to cluster around during the

358
00:15:00,610 --> 00:14:55,290
interesting periods I think excellent

359
00:15:05,769 --> 00:15:02,949
as as you may know at these low

360
00:15:08,889 --> 00:15:05,779
frequencies typical Faraday shields has

361
00:15:12,129 --> 00:15:08,899
no effect are you planning to do

362
00:15:15,400 --> 00:15:12,139
anything with use magnetic material that

363
00:15:17,980 --> 00:15:15,410

can actually shield in this frequency

364
00:15:19,480 --> 00:15:17,990
range I think two quick comments on that

365
00:15:20,920 --> 00:15:19,490
one I think there will the real answer

366
00:15:22,780 --> 00:15:20,930
to question is I don't know it depends

367
00:15:25,420 --> 00:15:22,790
on bill and whether there's funding to

368
00:15:28,120 --> 00:15:25,430
do that would be a great thing to do the

369
00:15:30,610 --> 00:15:28,130
other comment is that it's interesting

370
00:15:32,769 --> 00:15:30,620
to me that the effects happen seem to be

371
00:15:34,180 --> 00:15:32,779
although we don't have any statistics a

372
00:15:35,889 --> 00:15:34,190
little bit sorted the way they are

373
00:15:39,069 --> 00:15:35,899
between you know things happen on this

374
00:15:40,300 --> 00:15:39,079
side versus that side if it's a low

375
00:15:41,590 --> 00:15:40,310
frequency effect that's going through

376
00:15:44,050 --> 00:15:41,600
the Faraday cage I don't know why it

377
00:15:49,329 --> 00:15:44,060
would favor healing versus control

378
00:15:53,230 --> 00:15:49,339
etcetera but really the fact you get it

379
00:15:58,559 --> 00:15:53,240
Faraday cage there is no effect I could

380
00:16:04,900 --> 00:16:01,600
slide of the ringing burst really was

381
00:16:06,249 --> 00:16:04,910
impressive and but and I apologize if I

382
00:16:09,490 --> 00:16:06,259
should have been following along a

383
00:16:13,689 --> 00:16:09,500
little better what was you know what I'm

384
00:16:16,179 --> 00:16:13,699
talking about the ring yeah I mean what

385
00:16:18,100 --> 00:16:16,189
was the event that started it ringing oh

386
00:16:20,199 --> 00:16:18,110
well we don't know what that was

387
00:16:22,720 --> 00:16:20,209
so it just we don't know all we know is

388
00:16:24,850 --> 00:16:22,730

that it occurred during most of those

389
00:16:27,189 --> 00:16:24,860
occurred occurred around patient and

390
00:16:28,960 --> 00:16:27,199
they've heard during most of them during

391
00:16:31,389 --> 00:16:28,970
a during the rest periods and there was

392
00:16:33,370 --> 00:16:31,399
a healer and a patient so do you learn

393
00:16:36,129 --> 00:16:33,380
the patient or both in the space and the

394
00:16:38,590 --> 00:16:36,139
healer is not actively healing they're

395
00:16:41,170 --> 00:16:38,600
just kind of rest it just happened which

396
00:16:43,960 --> 00:16:41,180
might make something wonder if maybe the

397
00:16:46,960 --> 00:16:43,970
healing happens when they let go

398
00:16:52,779 --> 00:16:46,970
I don't know whatever that a man once

399
00:16:54,249 --> 00:16:52,789
was it was a very quickly man yeah very

400
00:16:56,980 --> 00:16:54,259
interesting experiment thank you very