## Notebook Screen Capture

## **High SNR Traceback Plot**

```
cc1 = fec.fec_conv(('10011', '11101'), 25)
EbN0 = 7
# Create 1000 random 0/1 bits
x = randint(0, 2, 1000)
# Encode with shift register starting state of '0000'
state = '0000'
y, state = cc1.conv_encoder(x, state)
# Add channel noise to bits translated to +1/-1
yn = dc.cpx_AWGN(2*y-1, EbN0-3, 1) # Channel SNR is dB less
# Translate noisy +1/-1 bits to soft values on [0, 7]
yn = (yn.real+1)/2*7
z = cc1.viterbi_decoder(yn)
# Look at the traceback in the VA trellis
cc1.traceback plot()
```

