```
Editor - C:\Users\Uzytkownik\Desktop\6 sem\ztt\pliki od kotrysa\sendpacket.m
 symulacja.m × transmiter.m × sysparam.m × sym1.m × signals.m × sendpacket.m × Untitled.m × +
             plot(outsymbols,'.');grid;axis([-1.5 1.5 -1.5 1.5]);title(sprintf('Received constelation, %d dB SNR',sysp.snr));
 74 -
 75 -
 76
 77
         % demodulation R2020
 78
        % rxlabels = qamdemod( outsymbols, 2^sysp.M, 'gray', 'UnitAveragePower',true )';
        % in elier Matlab versions: R2009
 79
        % rxlabels = qamdemod( outsymbols, 2^sysp.M, 0, 'gray' )';
 80
        % matrix demodulator
 81
 82 -
         rxlabels = demodulator( outsymbols, sysp );
 83
 84
        % to bin vector format
 85 -
        rxdatap = reshape(de2bi(rxlabels,sysp.M)', [], 1 );
 86
 87
 88
        % Decoder
 89
 90
        % Decoding of protection codes
 91
 92 -
        tb = 7:
 93 -
        trellis = poly2trellis(7,[171 133]);
 94 -
        rxdatap = vitdec(rxdatap, trellis, tb, 'term', 'hard');
        cut_here = length(rxdatap)/2;
Command Window
New to MATLAB? See resources for Getting Started.
 Bit errors:
                  249808, level: 5.00e-01
  Matrix dimensions must agree.
  Error in \underline{\text{demodulator}} (\underline{\text{line } 6})
     [x,labels] = min( (sysp.constm - repmat(samples,1,2^sysp.M)).^2,[],2 );
  Error in sendpacket (line 82)
  rxlabels = demodulator( outsymbols, sysp );
 Error in sym1 (line 29)
[fe,err] = sendpacket(sysp);
  Error in symulacja (line 8)
[ber, fe, SNR, titlestr] = syml( M, packetno );
```

fx >>

```
Editor - C:\Users\Uzytkownik\Desktop\6 sem\ztt\pliki od kotrysa\sendpacket.m
 symulacja.m
                   transmiter.m × sysparam.m × sym1.m × signals.m × sendpacket.m × Untitled.m × +
              rigure();
 74 -
              plot(outsymbols,'.');grid;axis([-1.5 1.5 -1.5 1.5]);title(sprintf('Received constelation, %d dB SNR',sysp.snr));
 75 -
 76
 77
          % demodulation R2020
 78 -
         rxlabels = qamdemod( outsymbols, 2^sysp.M, 'gray', 'UnitAveragePower',true )';
          % in elier Matlab versions: R2009
 79
 80
             rxlabels = qamdemod( outsymbols, 2^sysp.M, 0, 'gray' )';
 81
          % matrix demodulator
 82
          % rxlabels = demodulator( outsymbols, sysp );
 83
 84
          % to bin vector format
         rxdatap = reshape(de2bi(rxlabels,sysp.M)', [], 1 );
 85 -
 86
 87
 88
          % Decoder
 89
          % Decoding of protection codes
 90
 91
 92 -
         trellis = poly2trellis(7,[171 133]);
rxdatap = vitdec(rxdatap,trellis,tb,'term','hard');
 93 -
 94 -
 95
 96 -
         cut_here = length(rxdatap)/2;
Command Window
New to MATLAB? See resources for Getting Started.
  >> symulacia
  snr: 1.00, packets: 100, bits: 500000
  Frame errors: 100, level: 1.00e+00
Bit errors: 250329, level: 5.01e-01
                             level: 1.00e+00
  snr: 2.00, packets: 100, bits: 500000
  Frame errors: 100, level: 1.00e+00
Bit errors: 249613, level: 4.99e-01
  snr: 3.00, packets: 100, bits: 500000
  Frame errors: 100, level: 1.00e+00
Bit errors: 249736, level: 4.99e-01
  snr: 4.00, packets: 100, bits: 500000
  Frame errors: 100, level: 1.00e+00
Bit errors: 249617, level: 4.99e-01
```

