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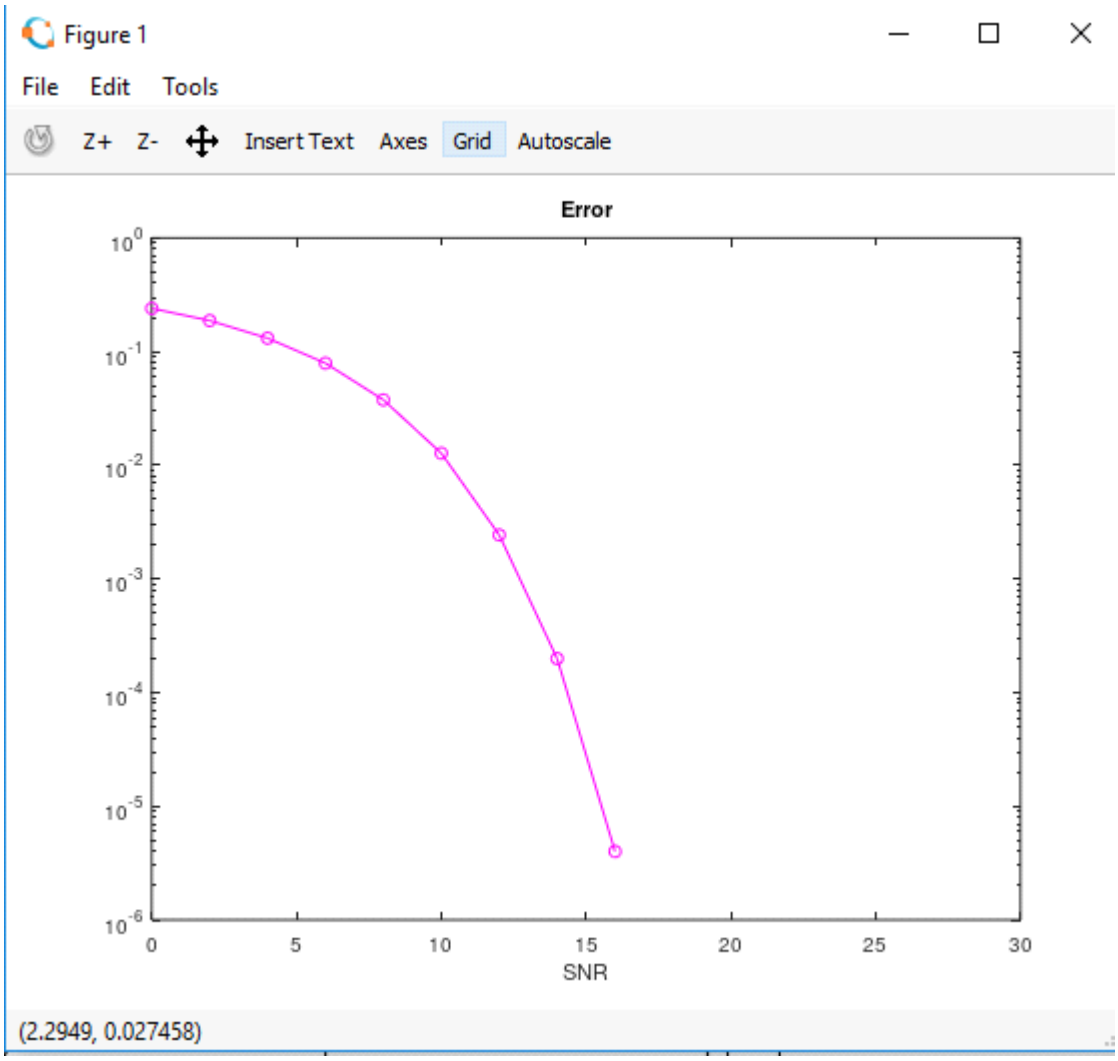
Experiment 1



* **'Measured' ?**

The signal level of in is computed to determine the appropriate noise level based on the value of snr.

* **At which value of SNR the system is nearly without error (for the given frame)?**

The last value

```
pkg load communications
```

```
binary_data = randi([0 1] , 1 , 1e6);
BER = [];
SNR = 0:2:31;
for i = SNR
        %Add some noise to generated bits
          Rx = awgn(binary_data,i,'measured');
        %(bit < 0.5 ? 0 : 1)
          result = Rx >= 0.5;
          % Getting err ratio
                %Compute number of bit errors and bit error rate (BER)
          [err,err_ratio] = biterr(binary_data,result);
        BER = [BER err_ratio];
end
semilogy(SNR,BER,'mo-')
title('Error');
xlabel('SNR');
ylabel('BER');
```