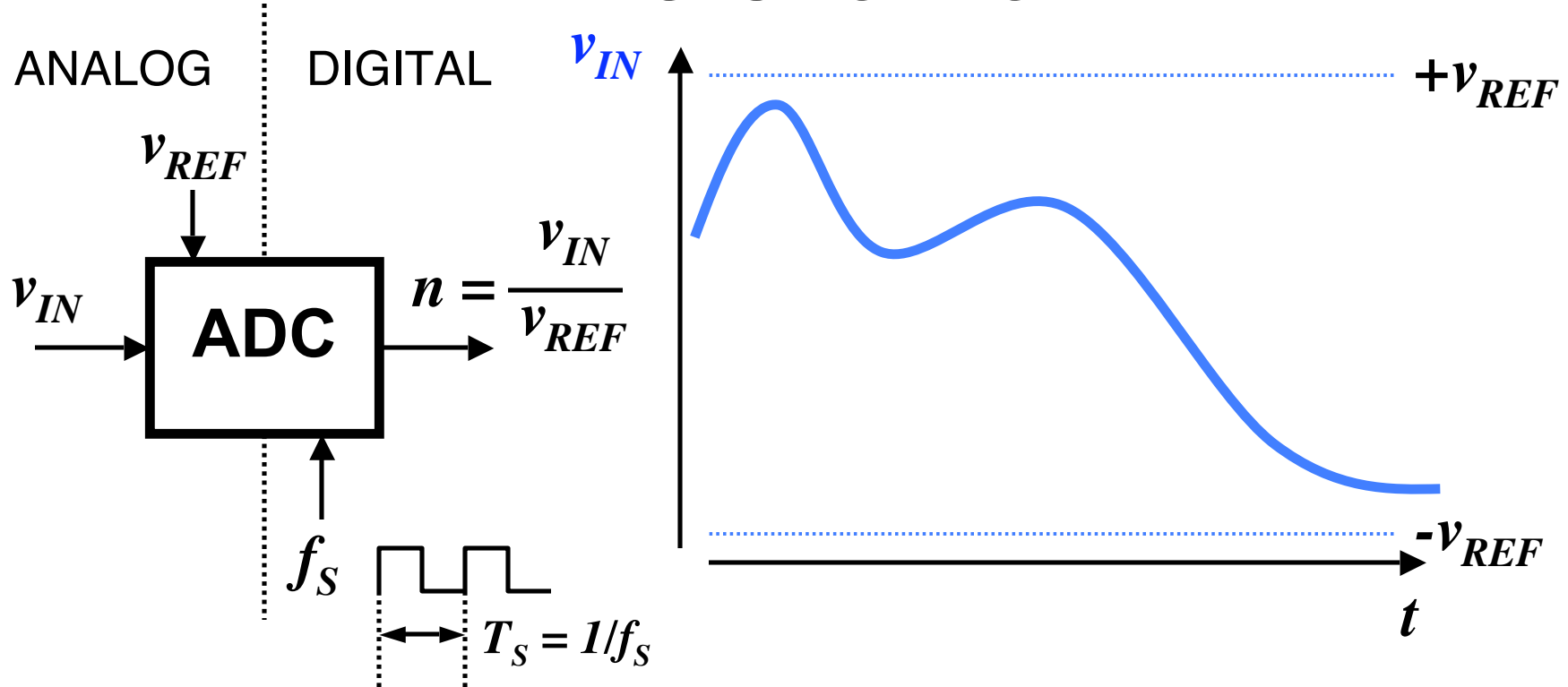
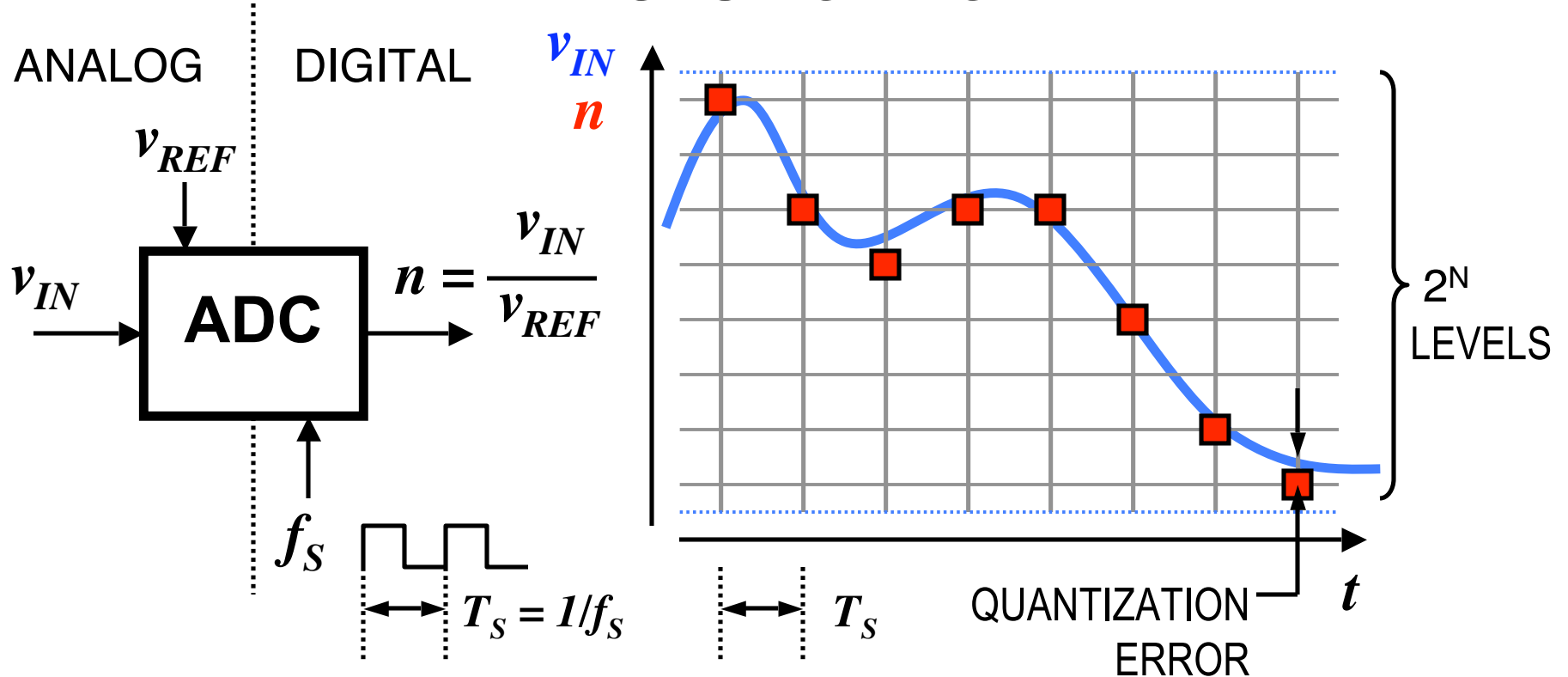


ADC Overview



Parameter	Determined by ...
f_s Sample Rate	Frequency content of v_{IN}
N Bits Resolution	Desired accuracy, SNR

ADC Overview

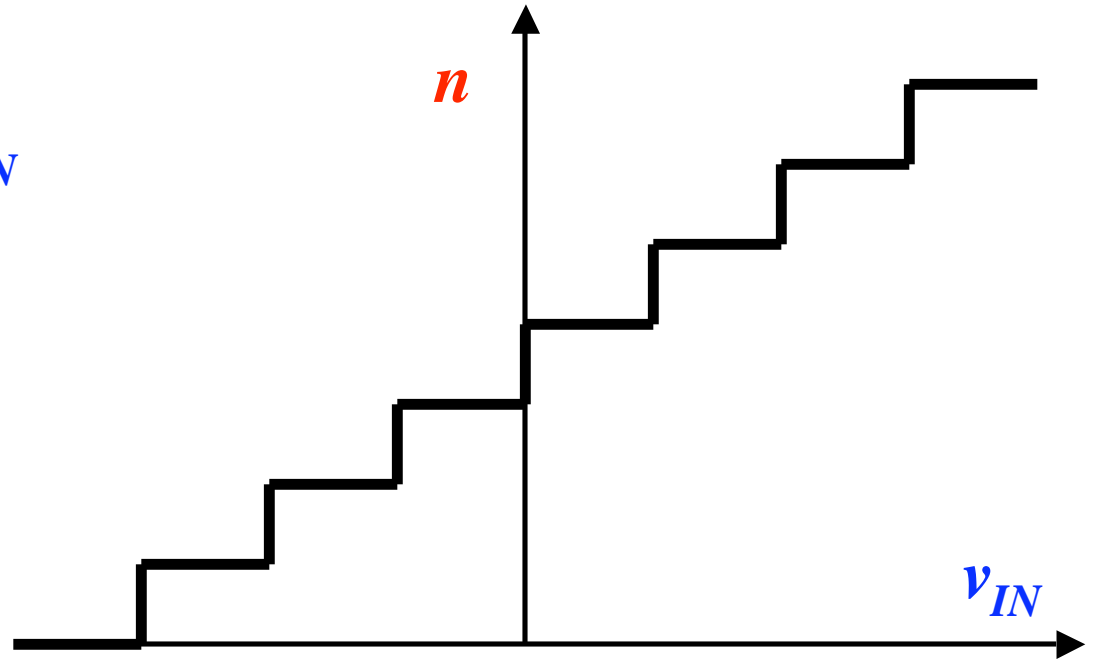


Parameter	Determined by ...
f_s Sample Rate	Frequency content of v_{IN}
N Bits Resolution	Desired accuracy, SNR

ADC Performance: Nonlinearity

DC sweep input v_{IN}

⇒ Plot output code n

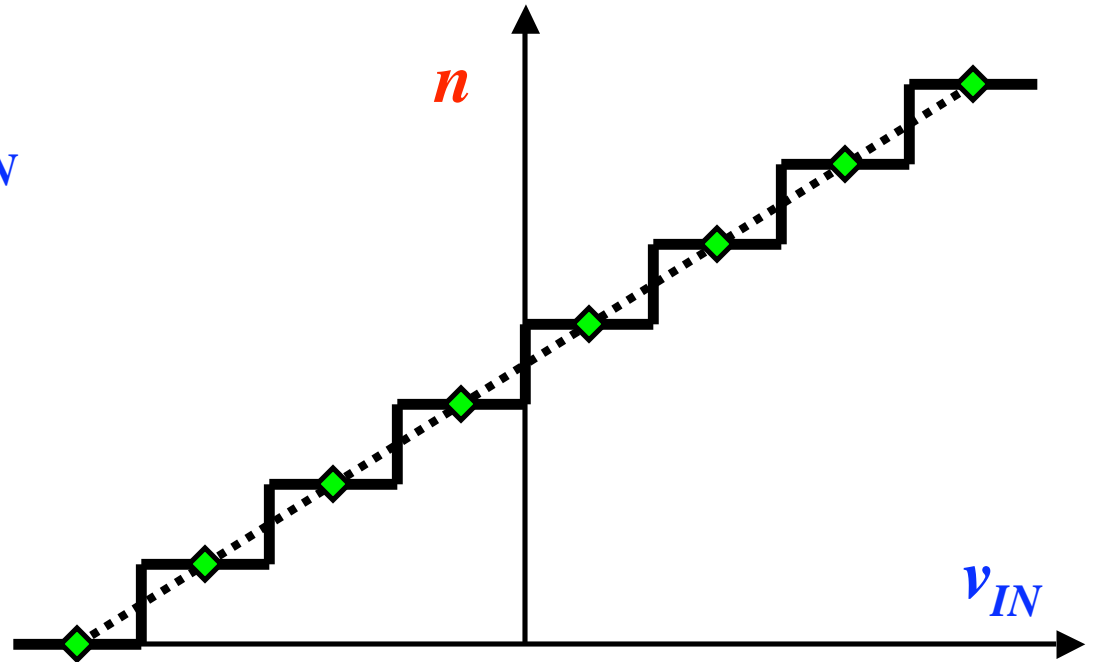


ADC Performance: Nonlinearity

DC sweep input v_{IN}

⇒ Plot output code n

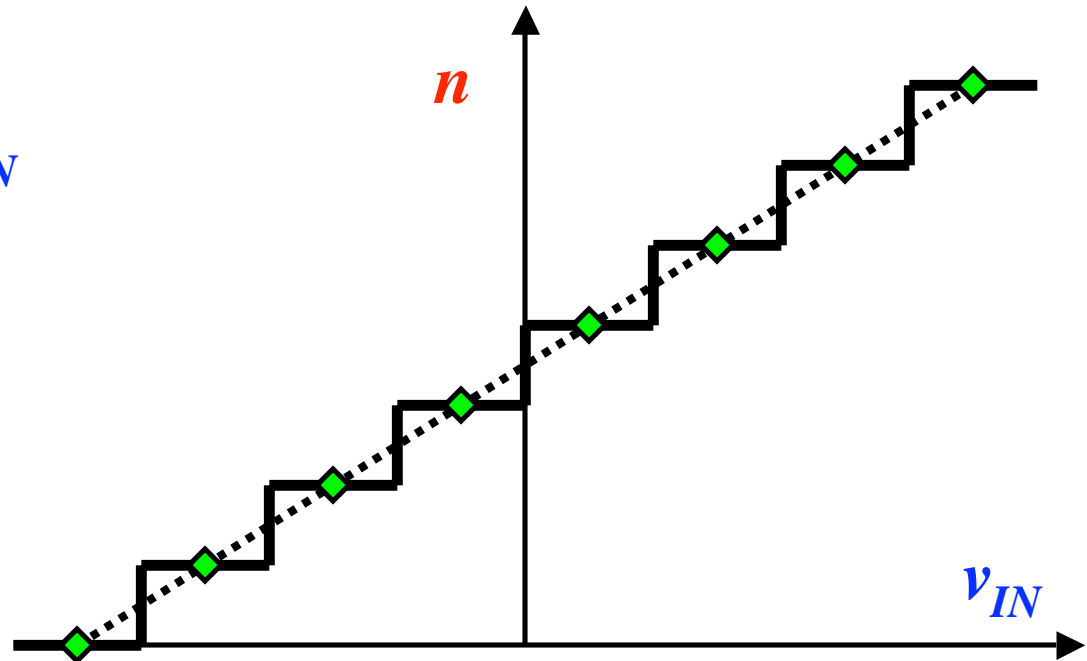
Fit straight line
to code centers ◆



ADC Performance: Nonlinearity

DC sweep input v_{IN}
⇒ Plot output code n

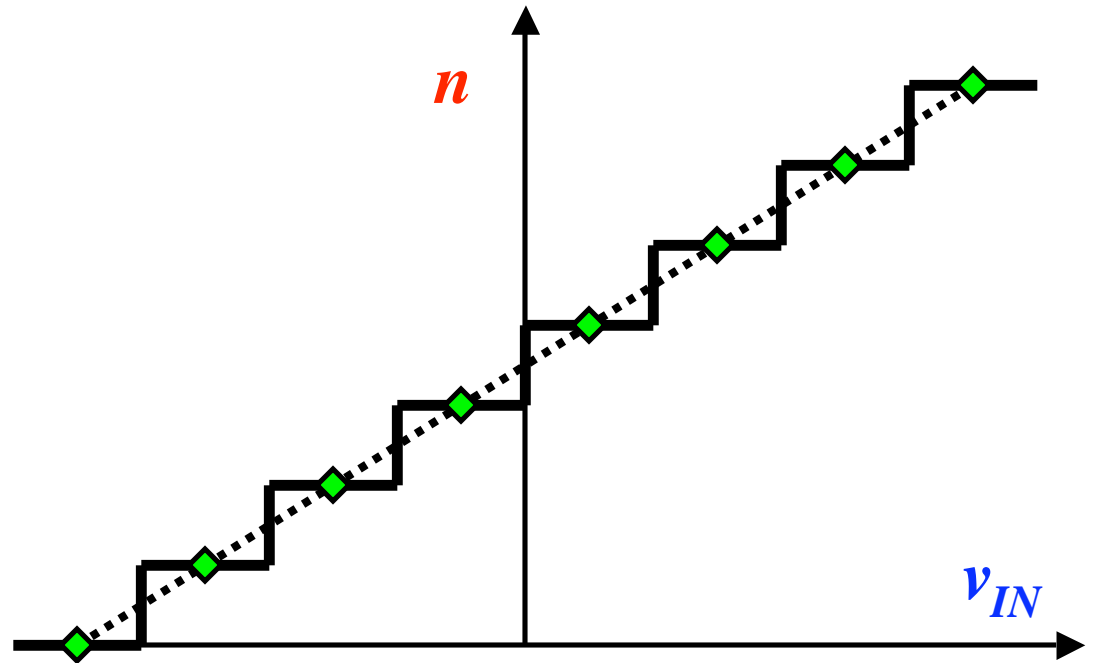
Fit straight line
to code centers ◆



Residuals:
INL Plot



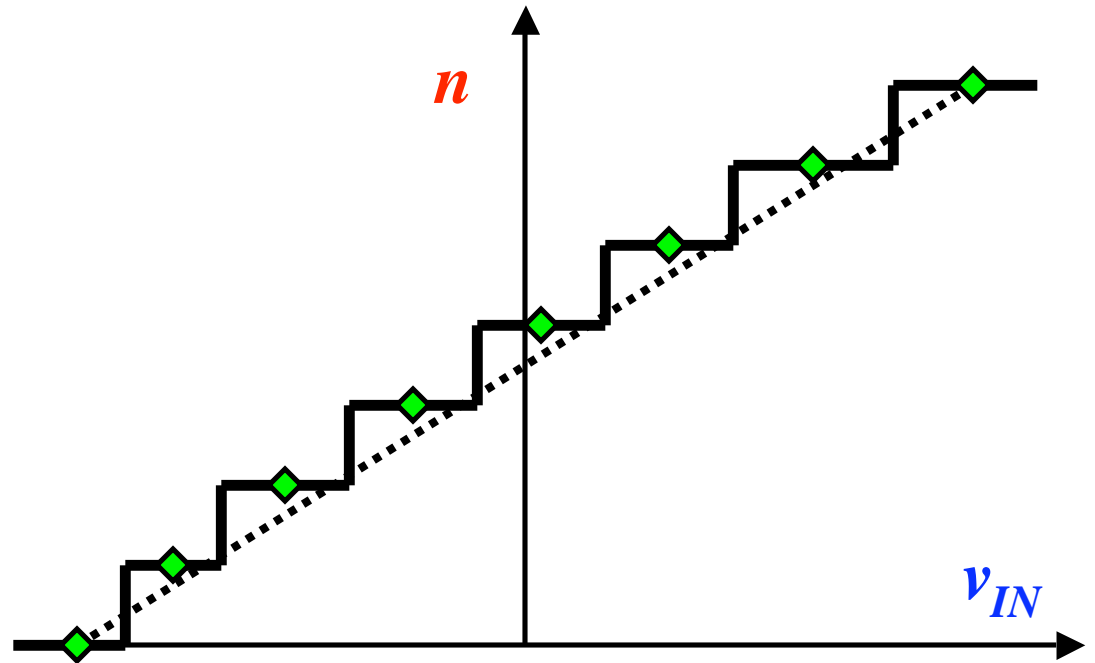
ADC Performance: Nonlinearity



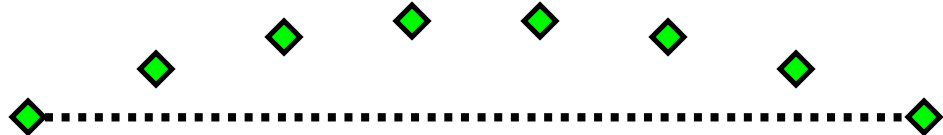
Ideal



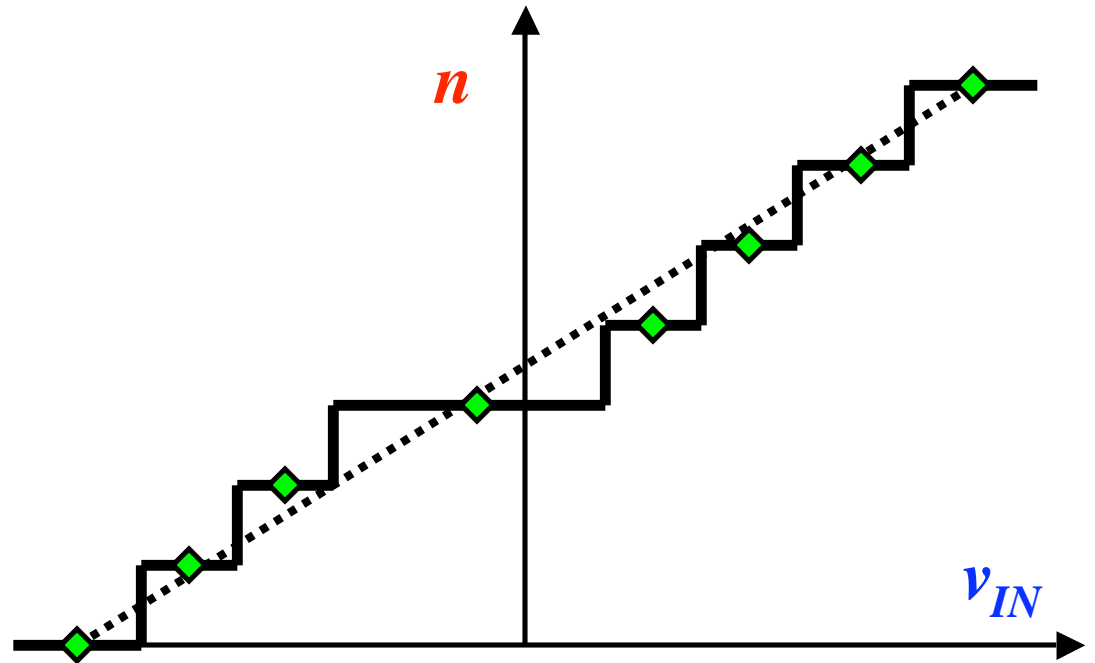
ADC Performance: Nonlinearity



Smooth
Nonlinearity



ADC Performance: Nonlinearity



**Localized
Nonlinearity**

