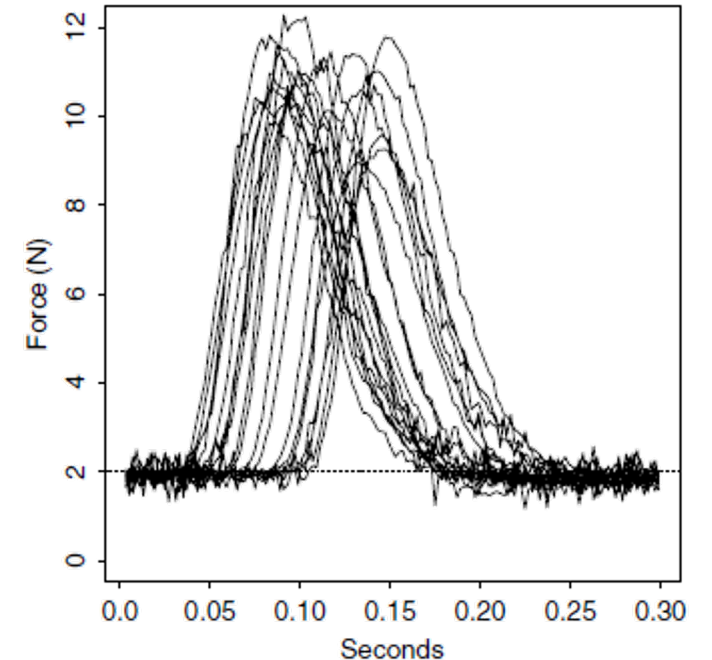


Functional Data Analysis (FDA)

➤ What are **functional data**?

Even though each observation involves only discrete values, these values reflect a **smooth** variation

Goals of FDA	Strategies of FDA
Data representation	Fourier/B-spline/Wavelets/Polynomial basis systems
Smoothing and interpolation	Localized least squares, Spline smoothing
Shift registration	Least squares criterion, Warping function
Exploring variability	Functional PCA, Canonical correlation and discriminant analysis
Data modelling	Functional linear models
Assessing prediction	Confidence intervals



➤ Application

Medicine, manufacturing, seismology, meteorology, physiology, and many other fields