

**FDA Workshop Notes**  
**April 7, 2003**

**Participants** will have an excellent background in traditional multivariate stats and especially applied stats. Some “hard-core” researchers to check out a related field, but mostly young researchers and graduate students who want to know about the field and if they should dedicate time to learning more.

<b>DATA</b>	<b>TOPICS</b>
Mouse Livers	Derivatives f Lin Mod Monotone Smoothing
Nondurable Goods	Linear + Harmonic Trends (basis function expansions) Phase-Plane Plots Roughness Penalty
Reaction Time Dist'n	Density (indirect relationship to data) f PCA f Lin Mod (Mixed Effects)
Growth	Simple smoothing (no penalty) Monotone smoothing Landmark registration Derivatives f PCA of warping functions
Handwriting	B-splines, roughness penalty 4th derivative Derivatives, DiffEq Cts Time registrations f Classification
Annual Mean Weather	Periodic smoothing Diff Operator f Lin Mod (FM, MF, FF) f PCA
Long Series Weather	Phase-Amplitude Cts Time registration
Item Response Tests	Indirect Function (item response) LDO roughness penalty, nonstandard f PCA f Lin Mod (male vs female)
Refinery	PDA Forced Diff Eq
Gait	
Lip	
Pinch	
Juggling	

**Rough Schedule**

1. Introduction	(30 min)	JR
2. Growth	(30 min)	JR
3. Mouse Livers	(30 min)	RN
4. Nondurable Goods	(30 min)	JR
5. Reaction Times	(60 min)	RN
6. Item Response Theory	(60 min)	JR
7. Handwriting	(60 min)	RN
8. Refinery	(30 min)	JR
9. Summary	(30 min)	RN