Overview of Short Course: I

• welcome!
• five day course will consist of four sessions each day (two in the morning and two in the afternoon, each about 45 minutes long)
• Monday
  1: introduction to wavelets and wavelet transforms (Part I)
  2: introduction to the discrete wavelet transform (Part II)
  3 & 4: basic theory for discrete wavelet transform (Part III)
• Tuesday
  1 & 2: MODWT & examples of DWT/MODWT analysis (Part IV)
  3: wavelet packet transforms and best bases (Part V)
  4: R software demonstration

Overview of Short Course: II

• Wednesday
  1: matching pursuit (Part VI)
  2 & 3: wavelet variance and covariance (Part VII)
  4: R software demonstration
• Thursday
  1 & 2: analysis & synthesis of long memory processes (Part VIII)
  3: wavelet-based bootstrapping (Part IX)
  4: wavelet-based signal extraction and denoising (Part X)
• Friday
  1 & 2: wavelet-based signal extraction and denoising (conclusion)
  3: R software demonstration
  4: continuous wavelet transforms (Part XI)

Resources

• software in Matlab:
  WMTSA: http://www.atmos.washington.edu/~wmtsa
  WaveCov: http://www.image.ucar.edu/staff/whitcher/software/
  wavelab: http://www-stat.stanford.edu/~wavelab/
• software in S-Plus: S+Wavelets 2.0 (commercial)
• software in R
  wavethresh: http://cran.r-project.org
  wavelets: http://cran.r-project.org
  (this and wavethresh available via ‘Packages’ sidebar item under ‘Software’)
  WaveCov: http://www.image.ucar.edu/staff/whitcher/software/
  wavelsim: http://www.image.ucar.edu/staff/whitcher/software/
• note: if any of these links break, go to http://faculty.washington.edu/~dbp/WMTSA/software.html
  or e-mail Don Percival (dbp@apl.washington.edu) to get new link

(*) indicates software compatible with conventions used in course notes and book