ROSE School: Basics of Seismology and Seismic Hazard Assessment

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DAY	DATE	MORNING (9:00 – 12:00)	Lecturer	AFTERNOON (14:00 – 17:00)	Lecturer
Monday	22th September	Hazard and Risk; Tectonics; Earthquakes & Faults	SA	*SeisVol, Relative plate motion*	SA
Tuesday	23rd September	Seismic Waves and Seismographs, Earthquake Location	DMB	*Waves; Travel-time curves; Geom. spreading*	DMB
Wednesday	24th September	Magnitudes & Mechanism	DMB	*Location exercise using real data; fault plane solutions*	DMB
Thursday	25th September	Earthquake Source Parameters,	DMB	*Calculation of magnitude, moment and Δσ*	DMB
Friday	26th September				
Monday	29th September	Characterization of Strong-Motion (Processing of data)	SA	*Processing of Strong-Motion Accelerograms*	SA
Tuesday	30th September	Properties of data from observations (source, path and site effects on gm)	DMB	*Estimating Scaling & Attenuation Parameters*	DMB
Wednesday	1st October	Ground Motion Prediction Equations form Observations	DMB	*Strong-Motion Regressions;* ***Predictions Eqns***	DMB
Thursday	2nd October	Ground Motion Simulations	DMB	*SMSIM & EXSIM*	DMB
Friday	3rd October				
Monday	6th October	Site Effects on Ground Motion	DMB	*SITEAMP& EDUSHAKE*	DMB
Tuesday	7th October	Seismicity: Data and Models, Macroseismic Intensity & Source Characterization	SA	***Earthquake Catalogues & Recurrence***	SA
Wednesday	8th October	Seismic Hazard Assessment: Overview	SA	***Construction of Seismic Scenarios and PSHA***	SA
Thursday	9th October	Probabilistic Seismic Hazard Assessment	SA	***Review of published hazard assessments CRISIS 2007***	SA
Friday	10th October				
Monday	13th October	Hazard Maps and Seismic Design Codes	SA	***Logic-trees for PSHA & Code Spectra***	SA
Tuesday	14th October	Selecting and scaling accelerograms	SA	***Hazard Assessment Workshop***	SA
Wednesday	15th October	***Presentations on Hazard Assessment***	SA-DMB	***Presentations on Hazard Assessment***	SA-DMB
Thursday	16th October	Final exam	SA-DMB		SA-DMB
Friday	17th October				

- Elements in *italics* are exercises and tutorials; elements in ***bold italics*** are project work; elements in normal type are lectures
- Course evaluation based on 3 elements:

1. Tutorials and exercises (45%)
2. Group oral reports on seismic hazard assessment project on Wednesday 15th October (30%)
3. Final exam on Thursday 16th October (25%)