

CURRICULUM VITAE ET STUDIORUM
Dr. Francesco Mirabella

PERSONAL DATA

Date of Birth: February 10th, 1973
Citizenship: Italian
Email: mirabell@unipg.it

PRESENT POSITION

Since **2009**: University Researcher (Lecturer) in Structural Geology at the University of Perugia, Department of Earth Sciences.

EDUCATION AND EXPERIENCE

2007-09: Coordinator of the working package "Upper crust structure" within a project named "*Test-sites for the multidisciplinary monitoring of active faults - test site Altotiberina fault*" financed by INGV and by the Italian Civil Defense Department.

2005-07: Research fellow at University of Perugia, Earth Sciences Department. Project "*Probable earthquakes in 2005-2035 in Italy*".

2004-05, Research contract at the "National Institute of Geophysics and Volcanology - INGV" (Rome). Project "*Active seismic sources in the Marche region (Central Italy)*".

2003-04 Post-Doctoral research fellow at the "Department of Earth Sciences of the University of Perugia (Italy)". Project "*Integration of geological and geophysical data for the geometric and dynamic definition of the seismogenic faults of the Umbria-Marche chain*".

2003 PhD at the University of Perugia with a dissertation entitled "*Seismogenesis of the Umbria-Marche region (Central Italy): geometry and kinematics of the active faults and mechanical behaviour of the involved rocks*". The PhD project developed a research based on the integration of different data sources, aimed at a seismotectonic study of the Umbria-Marche region (Northern Apennines of Italy). The main tools were the surface geological mapping, structural analysis, the interpretation of about 300 km of seismic reflection profiles calibrated with boreholes. These data, independently acquired, were compared with seismological data of mainshocks and aftershocks sequences occurred in the area in the last 30 years in order to identify the geological expression of the active faults. The aim was to identify the structural and lithological controls on the distribution of the seismic sequences and to understand if the different mechanical characteristics of the rocks could drive the distribution of the seismicity.

2001 Visiting researcher at the "*Rock Deformation Laboratory*" of the Earth Sciences Department of the University of Manchester (U.K.). The aim of the project was to perform rock deformation experiments on anhydrite-rich rocks in order to study their mechanical and frictional properties.

1998 BSc with honours (full marks with academic laude) in Geological Sciences with full marks and honours with a work entitled "*Integration of structural geological data and seismic reflection profiles across the Inner Ridge of the Umbria-Marche Apennines*".

TRAINING COURSES

7-13 January 2009 *Short course of Tectonic Geomorphology* by Prof. F:J. Pazzaglia, Department of Earth and Environmental Science, Lehigh University, USA.

3-5 July 2006 *Seismic facies, sequence stratigraphy and petrophysics of carbonate systems* by Prof. Dr. Gregor P. Eberli, Division of Marine Geology and Geophysics of the University of Miami, USA.

21-24 September 2004 *Use of Geological Fracture Mechanics for Analysis of Regional Tectonics* by Prof. Terry Engelder del Dept. of Geosciences della Pennsylvania State University, USA.

22-25 September 2003: *Petrophysics and experimental geomechanics* by Prof. Luigi Burlini (ETH, Zurich, Switzerland) and by Dott. Antonio Pellegrino (ENI Div. AGIP, S. Donato Milanese, Milano, Italia).

1998-2002 PhD in Earth Sciences in Perugia University

16-19 September 2002: *Geometrical and kinematics reconstruction methods applied in structural geology* by C. Kluth and J.V. Keller (Structural Geology Team of Chevron Petroleum Technology Company).

February-April 2001: *Engineering geology* by Prof. E.H. Rutter at the University of Manchester (UK).

23-25 May 2000: *Fluid inclusions in diagenetic and low-grade metamorphic systems* by Prof. R.H. Goldstein (University of Kansas, USA).

27 September-1 October 1999: *Structural permeability in deformed rocks* by Prof. R.H. Sibson (Otago University, New Zealand) and by Prof.ssa F. Ghisetti (University of Catania, Italy).

September 1996 Intensive field course in Devon, Wales and Cornwall.

1992-1998 Undergraduate five years course in **Geology** at the University of Perugia.

TITLES

February 2003, PhD, University of Perugia. Thesis title: "*Seismogenesis of the Umbria-Marche region (Central Italy): geometry and kinematics of the active faults and mechanical behaviour of the involved rocks*", advisor, Prof. M. Barchi;

October 1998, BSc University of Perugia, full marks with honours (110/110 cum laude). Title: "*Integration of structural geology and seismic reflection data across the Inner Ridge of the Umbria-Marche Apennines*"

TEACHING

Since **2009** I have held the field mapping course at the University of Perugia. The course is composed of room classes and field classes.

During **2003-2007** I got a temporal Professorship for the course of field mapping, second module, at the University of Perugia.

During **2006-2007** I taught in short-term opensource G.I.S. courses for professionals and public institution employers.

Since **2000** I have been involved in teaching activity of the University of Perugia for field mapping, structural analysis and geological interpretation of seismic reflection profiles. I am also co-advisor of several BSh thesis concerning the seismotectonics and earthquake geology.

SERVICES

Reviewer for Geological Magazine, Annals of Geophysics, Geophysical Journal International, Journal of Structural Geology.

Field-trip guide for the MOLE (Multidisciplinary Observatory and Laboratory Experiments at depth) workshop, May 2008. The field trip was across two extensional systems, the Colfiorito and Alotiberina systems in the Northern Apennines of Italy.

Field-trip guide for the Gordon Research Conference on Rock Deformation. The field trip was across the extensional tectonic structure of the Northern Apennines of Italy.

LANGUAGES

Italian, native language

English: fluent, both written and spoken

RESEARCH

My research concerns the study of active faults, their geometry and segmentation both at the surface and at depth and the identification of the seismogenic layer thickness. The research activity is based on the integration of geological data (surface geology and deep wells), geophysical data (seismic reflection profiles) and seismological data (seismic sequences and mainshocks locations). The research activity is focussed on the Northern Apennines of Italy which allow the application of different methodologies and the study of both compressional and extensional domains. The main applications of the research concern the seismic risk, and the activities related to drillings (deep boreholes and tunnels). Recently I have expanded my research to the investigation of the effects of active tectonics to the topography and fluvial systems and how we can extract tectonic information from the landscape. I am involved in a ICDP drilling project "MOLE - Multidisciplinary Observatory and Laboratory of Experiments central Italy" aimed at drilling the Altotiberna low-angle normal fault in the Northern Apennines of Italy.

The themes of my research can be summarised as follows:

geological interpretation of seismic reflection profiles,;

construction of integrated geological sections extrapolated to hypocentral depths;

relationships between fault and earthquakes

faults growth, segmentation and interaction;

seismotectonics

Quaternary geology;

Tectonic geomorphology;

Methods

geological interpretation of seismic reflection profiles;

field mapping;

structural analysis;

analysis of earthquakes distribution;

aerial photographs interpretation;

data integration in a G.I.S. environment;

COMPUTER SCIENCE KNOWLEDGES

Operating systems: Unix/Linux, Sun, Mac-Os, MSDOS, Windows 9*/NT/2000/xp/vista

Software:

Text processors: LaTeX, OpenOffice, MS-Office;

Bibliographic databases: BibTeX

Electronic sheets: Gnumeric, Grace, Excel;

Management of geographic data (G.I.S): GRASS-GIS, QGis, Thuban, ArcView, Mapinfo;
Graphics: Sketch, Inkscape, Gimp, Adobe Illustrator, Corel Draw, Adobe Photoshop.

Programming languages: some knowledges of PostScript ed HTML.

AWARDS

December 1999 The BSc thesis was awarded by Eni oil-company with the "*Undergraduate Thesis Award*", for the best 1998 BSc thesis, award financed by SPE-EAGE-ASSOMIN.

PUBLICATIONS

Articles in preparation:

1. Pucci S., Barchi M.R., Melelli L., **Mirabella F.**, Pazzaglia F., Saccucci S., Soligo M. and Tuccimei P. "Comparing long, intermediate and short-term deformations at the hanging-wall of an active low-angle normal fault in the Northern Apennines of Italy".

International and National Journals:

2. **Mirabella F.**, Brozzetti F., Lupattelli and Barchi M.R. 2011. "Tectonic evolution of an active low-angle extensional system in the Northern Apennines from restored cross-sections". **Tectonics**, doi:10.1029/2011TC002890, in press.
3. Barchi M.R. and **Mirabella F.** 2009. "The 1997-98 Umbria-Marche earthquake sequence: 'Geological' vs. 'seismological' faults". **Tectonophysics**, 476, 170-179.
4. **Mirabella F.**, Barchi M.R. and Lupattelli A. 2008. "Seismic reflection data in the Umbria Marche Region: limits and capabilities to unravel the subsurface structure in a seismically active area". **Annals of Geophysics**, 51(2/3).
5. **Mirabella F.**, Barchi M.R., Lupattelli A., Stucchi E. and Ciaccio M.G. 2008. "Insights on the seismogenic layer thickness from the upper crust structure of the Umbria-Marche Apennines (Central Italy)". **Tectonics**, 27, TC1010, doi:10.1029/2007TC002134.
6. De Paola N., **Mirabella F.**, Barchi M.R. and Burchielli F. (2006) "*Early orogenic normal faults and their reactivation during thrust belt evolution: the Gubbio Fault case study, Umbria-Marche Apennines (Italy)*". **Journal of Structural Geology**, 28, 1948-1957.
7. Stucchi E., **Mirabella F.** and Ciaccio M.G. (2006) "*Comparison between reprocessed seismic profiles seismologic and geologic data: a case study of the Colfiorito earthquake area*". **Geophysics**, 71(2), B29-B40.
8. Ciaccio M.G., Barchi M.R., Chiarabba C., **Mirabella F.** and Stucchi E. (2005) "*Seismological, geological and geophysical constraints for the Gualdo Tadino fault, Umbria-Marche Apennines (Central Italy)*". **Tectonophysics**, 406(3/4), 233-247.
9. **Mirabella F.**, Boccali V. and Barchi M.R. (2005) "*Segmentation and interaction of normal faults within the Colfiorito fault system (Central Italy)*". In: Gapais D., Brun J.P. and Cobbold P.R. (eds): "Deformation Mechanisms, Rheology and Tectonics: from Minerals to the Lithosphere". **Geological Society, London, Special Publications**, 243, 25-36.
10. Chiaraluca L., Barchi M.R., Collettini C., **Mirabella F.** and Pucci S. (2005) "*Connecting seismically active normal faults with Quaternary geological structures: the Colfiorito 1997 case history (Northern Apennines, Italy)*". **Tectonics**, 24, TC1002, doi:10.1029/2004TC001627.
11. **Mirabella F.**, Ciaccio M.G., Barchi M. and Merlini S. (2004) "*The Gubbio fault (Central Italy): geometry, displacement distribution and tectonic evolution*". **Journal of Structural Geology**, 26, 2233-2249.
12. **Mirabella F.**, Barchi M.R., Chiaraluca L., Collettini C. and Pucci S. (2004) "*Multidisciplinary methods of investigation for a single fault*". In: "Active faults: analysis, processes and monitoring COST-action 625" Eds. L.Piccardi & E. Tondi. Vol. Spec. **Studi Geologici Camerti**, 99-102.

13. Collettini C., Barchi M., Chiaraluce L., **Mirabella F.**, and Pucci S. (2003) "*The Gubbio fault: can different methods give pictures of the same object?*". *Journal of Geodynamics*, 36, 51-66.
14. Barchi M., Collettini C., Chiaraluce L., **Mirabella F.**, Costanzo F., Massoli D., Minelli G., Pauselli C. and Pucci S. (2003) "*Tettonica estensionale e sismogenesi nell'Appennino Settentrionale*". *Geodinamica Acta*, (0985-3111), 2, Special Issue, 9-12.
15. **Mirabella F.** & Pucci S. (2002) "*Integration of geological and geophysical data along a section crossing the region of the 1997-98 Umbria-Marche earthquake (Italy)*". *Bollettino della Società Geologica Italiana*, Vol.Spec n° 1, 891-900, 8ff.
16. Barchi M., Cardinali M., Chiraz P., Collettini C., Federico C., Guzzetti F., Magnani B., Minelli G., **Mirabella F.**, Pauselli C., Piali G., Pucci S. & Troiani E. (2000). "*Integrazione di dati geofisici e geologici per la caratterizzazione delle strutture sismogenetiche di Colfiorito e di Gubbio*". PE 98 - Progetto 5.1.1 in: *Le ricerche del GNDT (Gruppo Nazionale per la Difesa dai Terremoti) nel campo della pericolosità sismica (1996-1999)*. A cura di: Galadini, C., Meletti C. and Rebez A. 149-156 pp. http://gndt.ingv.it/Pubblicazioni/Meletti/2_05_Barchi.pdf.

PhD Thesis:

17. **Mirabella F.** (2002) "*Seismogenesis of the Umbria-Marche region (Central Italy): geometry and kinematics of the active faults and mechanical behaviour of the involved rocks*". 121 pp. University of Perugia.

Technical reports:

18. Basili R., Burrato P., Mariano S., **Mirabella F.**, Ravaglia A., Valensise G. & Vannoli P. (2005) "*Identificazione e caratterizzazione delle sorgenti sismogenetiche*" Convezione INGV-Regione Marche "*Studio delle sorgenti sismogenetiche potenzialmente pericolose e degli effetti attesi a seguito di eventi sismici lungo la fascia costiera marchigiana nei tratti "Fano-Senigallia" e "Civitanova Marche - Pedaso"*".
19. Klinc P., Priolo E., **Mirabella F.** & Barchi M.R. (2004). Coordinated Project "*Sviluppo e confronto di metodologie per la valutazione della pericolosità sismica in aree sismogenetiche: applicazione all'Appennino centrale e meridionale*". Open File Report: OFR TASK4 A7.2 "*3D model and ground motion simulation for the Colfiorito area*".

Invited Talks:

20. **Mirabella F.** (2007) "*Seismic reflection data in the Umbria-Marche active area: limits and capabilities to unravel the subsurface structure*". Colfiorito 1997-2007: evolution of the studies on an earthquake", Roma 8-10 Ottobre 2007, organised by INGV and Roma3 University.

Abstracts:

21. **Mirabella F.**, Barchi M., Brozzetti F., Lupattelli A., Melelli L., Saccucci L., Pazzaglia F. & Pucci S. (2010). "*Comparing long term deformations and short term fluvial response at the hanging-wall of an active low angle normal fault in the Northern Apennines of Italy*". William Smith Meeting 2010 - Landscapes Into Rock, London 21-23 September 2010.
22. **Mirabella F.**, Barchi M., Brozzetti F., Lupattelli A., Melelli L., Saccucci L., Pazzaglia F. & Pucci S. (2010). "*Morphotectonic evolution of a Quaternary basin driven by a segmented low-angle extensional system*". Italian Group of Structural Geology meeting. June 2010, Potenza.
23. Bruno P.P., Castiello A., De Rosa D., Improta L., Pierdominici S., Punzo M., Varriale F., Villani F. **Mirabella F.**, Montone P. & Chiaraluce L. (2009). "*Shallow imaging of the Tiber Valley basin by high-resolution seismic profiling: preliminary results*". Convezione-Quadro tra Dipartimento della Protezione Civile e Istituto Nazionale di Geofisica e Vulcanologia Triennio 2007-09 Convegno annuale dei progetti sismologici Sala convegni del Rettorato - Università Roma Tre, Via Ostiense 159, Roma 19-21 Ottobre 2009.
24. **Mirabella F.**, Barchi M.R., Brozzetti F. & Lupattelli A. (2009). "*Upper crust structure and tectonic evolution of the Altotiberina normal fault (central Italy)*". Convezione-Quadro tra

- Dipartimento della Protezione Civile e Istituto Nazionale di Geofisica e Vulcanologia Triennio 2007-09 Convegno annuale dei progetti sismologici Sala convegni del Rettorato - Università Roma Tre, Via Ostiense 159, Roma 19-21 Ottobre 2009.
25. Ciaccio M.G., Barchi M.R., **Mirabella F.** & Pauselli C. (2009). "*Seismicity and Bouguer anomaly distributions along the CROP-03 and CROP-11 regional seismic reflection profiles*". Convezione-Quadro tra Dipartimento della Protezione Civile e Istituto Nazionale di Geofisica e Vulcanologia Triennio 2007-09 Convegno annuale dei progetti sismologici Sala convegni del Rettorato - Università Roma Tre, Via Ostiense 159, Roma 19-21 Ottobre 2009.
 26. **Mirabella F.**, Barchi M.R., Brozzetti F. & Lupattelli A. (2009). "*Balanced cross-sections across a low angle normal fault in the Northern Apennines of Italy*". VII Forum Italiano di Scienze della Terra, Rimini 9-11 Settembre 2009.
 27. Barchi M.R., **Mirabella F.**, Chiaraluce L., Cocco M. & Montone P. (2008). "*An active low-angle normal fault in the Northern Apennines (Italy): a possible site for ICDP drilling*". 33rd International Geological Congress (IGC), Oslo August 6-14th 2008 (Norway).
 28. Barchi M.R., Lupattelli A. & **Mirabella F.** (2008) "*Balanced cross-sections across a low-angle normal fault in the Northern Apennines of Italy*". Congresso Nazionale della Società Geologica Italiana, Sassari 15-17 Settembre 2008.
 29. Taramelli A., **Mirabella F.**, Melelli L. & Barchi M. (2007). "*Tectonics from topography: surface flow patterns and their correlation with active normal faults geometry in the northern Apennines*" EGU meeting Vienna, April 15-20, 2007.
 30. **Mirabella F.**, Lupattelli A., Barchi M., Stucchi E. & Ciaccio M.G. (2007). "*Insights on the seismogenic layer thickness from the upper crust structure of the Umbria-Marche Apennines (Central Italy)*" EGU meeting Vienna, April 15-20, 2007.
 31. Barchi M., Collettini C. & **Mirabella F.** (2007). "*Seismic reflection imaging of seismogenic faults: observations from the Apennines of Italy*" EGU meeting Vienna, April 15-20, 2007.
 32. **Mirabella F.**, Lupattelli A., Barchi M., Stucchi E. & Ciaccio M.G. (2007). "*Un contributo strutturale all'individuazione dello spessore dello strato sismogenetico in Appennino Settentrionale*" GIGS meeting Urbino (Italy), March 12-13, 2007.
 33. **Mirabella F.**, Lupattelli A. & Barchi M. (2007). "*Un contributo dalla sismica a riflessione dell'area di Colfiorito per l'individuazione dello strato sismogenetico*" Workshop "Dieci anni dopo il terremoto dell'Umbria-Marche: stato delle conoscenze sulla sismogenesi in Italia", Camerino (Italy) March 12-13, 2007.
 34. **Mirabella F.**, Barchi M., Stucchi E. & Ciaccio M.G. (2007). "*Seismic reflection constraints on the seismogenic layer thickness of the Umbria-Marche Apennines of Italy*" Workshop "Dieci anni dopo il terremoto dell'Umbria-Marche: stato delle conoscenze sulla sismogenesi in Italia", XXIV IUGG meeting Perugia (Italy), July 3rd-13th.
 35. **Mirabella F.**, Barchi M., Lupattelli A., Melelli L., Taramelli A. & Rogledi S. (2007). "*Subsurface and surface data in the San Sepolcro, Casentino and Mugello basins (Northern Apennines of Italy): new constraints on the active tectonics of the area*". Sesto forum Italiano di Scienze della Terra, Rimini, 12-14 September 2007.
 36. Taramelli A. & **Mirabella F.** (2006) "*Surface flow patterns and their correlation with faults geometry using SRTM and reflection seismic data in the S.Sepolcro basin - Central Italy*" AGU Fall meeting S.Francisco, December 11-15, 2006.
 37. **Mirabella F.** Barchi M.R., Lupattelli A. & Rogledi S. (2006) "*Seismic data in the S.Sepolcro and Casentino Quaternary basins (Northern Apennines): inferences on the geometry of the associated extensional system*" 25° convegno nazionale del Gruppo Nazionale di Geofisica della Terra Solida (GNGTS), Roma 28-30 Novembre 2006, volume degli abstracts, 314.
 38. **Mirabella F.** & Barchi M.R. (2006) "*Growth and interaction of active normal fault segments in the Umbria-Marche Apennines of Central Italy*" European Geosciences Union General Assembly 2006 Vienna, Austria, 02-07 April 2006.
 39. **Mirabella F.**, Barchi M.R. & De Paola N. (2005) "*Seismic and field evidence for "pre" and "post-thrusting" extension in a thrust belt: the Gubbio fault case study, Umbria-Marche Apennines (Italy)*" FIST, Spoleto 21-23 settembre 2005.

40. Basili R., **Mirabella F.**, Vannoli P. & Valensise G. (2004) "*Identifying Blind Seismogenic Faults at the Apennine Thrust Front: Implications for the Seismic Hazard of the Northern Marche (Central Italy) Coastal Belt*" accettato per una comunicazione orale a: Eos Trans. AGU, 85(47), Fall Meet. Suppl.
41. **Mirabella F.**, Barchi M.R. & De Paola N. (2004) "*Evidences of multiple fault reactivation in the Northern Apennines: the Gubbio normal fault case study*". 32rd International Geological Congress (32IGC), August 20-28, 2004 Florence (Italy).
42. Frigeri A., Marchesini I. & **Mirabella F.** (2004) "*Modern geological mapping: Free Software and Satellite Positioning System*". 32rd International Geological Congress (32IGC), August 20-28, 2004 Florence (Italy).
43. **Mirabella F.**, Boccali V. & Barchi M.R. (2004) "*Interaction and scaling properties of normal faults in the Colfiorito area (Central Italy)*". Tectonic Studies Group meeting, January 7-9 2004, Durham (UK).
44. Stucchi E., **Mirabella F.** & Ciaccio M.G. (2003) "*Rielaborazione di dati di sismica a riflessione in aree tettonicamente attive: l'area Umbro-Marchigiana*". 22° convegno nazionale del Gruppo Nazionale di Geofisica della Terra Solida (GNGTS), Roma 18-20 Novembre 2003, volume degli abstracts, 93-94.
45. Ciaccio M.G., Chiarabba C., Barchi M., **Mirabella F.** & Stucchi E. (2003) "*Un approccio interdisciplinare allo studio della struttura di Gualdo Tadino (Appennino Centrale, Italia)*". 22° convegno nazionale del Gruppo Nazionale di Geofisica della Terra Solida (GNGTS), Roma 18-20 Novembre 2003, volume degli abstracts, 74-75.
46. Barchi M.R., Chiaraluce L., Collettini C., **Mirabella F.** & Pucci S. (2003) "*Connecting seismically active and Quaternary normal faults: the Colfiorito 1997 case history (Northern Apennines Italy)*". 22° convegno nazionale del Gruppo Nazionale di Geofisica della Terra Solida (GNGTS), Roma 18-20 Novembre 2003, volume degli abstracts, 69-70.
47. **Mirabella F.** & Barchi M.R. (2003) "*Interaction and scaling properties of normal fault segments in the Colfiorito area*", 22° convegno nazionale del Gruppo Nazionale di Geofisica della Terra Solida (GNGTS), Roma 18-20 Novembre 2003, volume degli abstracts 85-86.
48. Ciaccio M.G., Barchi M., Chiarabba C., **Mirabella F.** & Stucchi E. "*Geological and geophysical constraints for the Gualdo Tadino structure, central Apennines (Italy)*", convegno FIST GeoItalia, Bellaria 16-18 Settembre 2003.
49. Ciaccio M.G., **Mirabella F.** & Stucchi E. "*Relationships between the geometry of seismogenic faults and observed seismicity: a contribute from reflection seismic*" Session TS19, EGS - AGU - EUG Joint Assembly, Nice, France, April 2003.
50. **Mirabella F.**, Boccali V. & Barchi M.R. (2003) "*Displacement-length profiles on the active fault system of Colfiorito (Central Italy)*". Deformation mechanisms, Rheology and Tectonics conference, St.Malo, Aprile 2003.
51. **Mirabella F.** & Barchi M.R. (2003) "*The Gubbio normal fault and the Colfiorito fault system within the active faults of the Umbria-Marche Apennines (Central Italy): a comparison between geological and geophysical data*". poster al TSG (Tectonic Studies Group) meeting di Liverpool (UK), Gennaio 2003.
52. **Mirabella F.** & Barchi M.R. (2003) "*Mechanical properties of anhydrites and dolomites in the framework of the seismogenesis of the Umbria-Marche Apennines (Central Italy)*" comunicazione orale al TSG (Tectonic Studies Group) meeting di Liverpool (UK), Gennaio 2003.
53. Stucchi E., **Mirabella F.**, Barchi M.R., Zanzi L., Mazzotti M. & Merlini S. (2002) "*Characterisation of seismogenic faults by means of reflection seismic surveys. A case study in the Colfiorito area: 1997 Umbria-Marche earthquakes*". Abstract esteso alla EAGE 64th Conference and exhibition, Florence, Italy 27-30 May 2002.
54. **Mirabella F.**, Faulkner D.R. & Rutter E.H. "*Laboratory friction tests on dry synthetic anhydrite gouges at room temperature*". Poster "Gordon Research Conferences on Rock Deformation", il Ciocco-Barga (Italy), May 19-24 2002.
55. Barchi M.R., L. Chiaraluce, C. Collettini, **Mirabella F.** & S. Pucci. (2002) "*The Gubbio seismogenic normal fault: Can different methods picture the same object?*". In: Active Faults and Processes: Analysis, Processes and Monitoring. Camerino May, 3-6, 2002.

56. Barchi M.R., Collettini C., Federico C., Minelli G., **Mirabella F.** & Pauselli C. -"Active Tectonics of the Umbria Region (Central Italy) in the Framework of the Neogene-Quaternary Extension of the Northern Apennines". AGU Fall Meeting 2001, S. Francisco.
 57. Barchi M.R., Pucci S., Collettini C., **Mirabella F.**, Massoli D., Guzzetti F., Reichenbach P., Cardinali M., Vergoni N., Troiani E., Chiraz P. & Giombini L. (2001) "A geological map of the Colfiorito area" Convegno FIST GeoItalia 01, Volume dei Riassunti, 333-334.
 58. Barchi M.R., Ciaccio M.G., Collettini C., Federico C., Magnani M.B., Massoli D., Minelli G., **Mirabella F.** & Pauselli C. (2001) "The crustal structure of the Northern Apennines: an insight by the Crop03 profile". Convegno FIST GeoItalia 01, Volume dei Riassunti, 42.
 59. Barchi M. R., Pauselli C., Collettini C. & **Mirabella F.** (2001) "The detachment horizons and the Umbria-Marche Apennines (Italy) and their influence in the structural style of the region". Tectonic Studies Group meeting, Leeds.
 60. **Mirabella F.**, Ciaccio M.G. & Pauselli C. (2000) "Geometria delle deformazioni dalla Valle del Tevere alla Ruga Interna dell'Appennino Umbro-Marchigiano: il punto di vista della sismica a riflessione" 19° convegno GNGTS Roma p.20-21.
 61. **Mirabella F.**, Pucci S. & Barchi M. (2000). "Integration of geological and geophysical data along two sections crossing the region of the 1997-98 Umbria-Marche earthquake". In: "Evoluzione Geologica e Geodinamica dell'Appennino" Foligno 16-17 Febbraio 2000, Volume degli abstracts p. 219-220.
 62. Barchi M., Collettini C., Pauselli C., **Mirabella F.**, Pucci S., Massoli D., Federico C., Magnani B. & Minelli G. (2000). "The seismogenic faults of umbria: an interdisciplinary approach". In: "Evoluzione Geologica e Geodinamica dell'Appennino" Foligno 16-17 Febbraio 2000, Volume degli abstracts p. 21-22.
 63. Barchi M., **Mirabella F.**, Collettini C., Pucci S., Chiraz P., Troiani E., Burzi A., Ciribifera G. & Piali G. (1999) "Geometria delle strutture estensionali lungo due sezioni geologiche attraverso l'area colpita dal sisma umbro-marchigiano del 1997-98". FIST 1999, volume degli abstracts.
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