

SLATE Workshop: Field evidence of mass transport deposits

Soft-skill training, Theme-focused workshops, Technical Workshops, Field Trips

15-21 September 2019

CNR Area della Ricerca di Bologna, Via P. Gobetti 101 – 40129 BOLOGNA

Congress center, main hall 1st floor, rooms 213, 214, 2015

Final circular

Accommodation:

ESRs: block reservation in youth hostel <https://we-bologna.com/en/hostel-bologna/>

Via de' Carracci, 69/14, 40129 Bologna. Phone number: +39 051 039 7900

Pls and POs: Accommodation to be reserved independently, rooms still available at the hostel, please check on booking and select a double room single occupancy. Several hotels are available in the surroundings of the hostel (see **map 1**).

Travel: Bologna airport is the most convenient option. Alternatives: Milan, Rome or Venice, with fast train connection to Bologna. Airport to city centre by: bus (BLQ shuttle 6 €), taxi run (15-20 €).

External experts: Gian Andrea Pini (University of Trieste), Kei Ogata (Vrije Universiteit, Amsterdam), Sonia Venturi (Ecosistema s.r.l., Imola), Fabiano Gamberi (ISMAR CNR, Bologna), Maria Teresa Brunetti (IRPI CNR, Perugia).

Final Program

Sunday 15/9	Technical Workshop, ESRs only room 213	10:00 – 16:00 Dr. Mike Clare, SLATE partner: Scientific writing
Monday 16/9	09:00-18:00 CNR Bologna – Congress center Theme-focused workshop room 215	7 Student presentations (3.5 hours 9-13:00) 13:00 – 14:00 Lunch [poster boards preparation] 14:00 Key-note Lecture by Pini (with the contributes of Camerlenghi, Festa, Ogata and Dilek): “Fossil” MTDs/MTCs, advancement of knowledge and their role in the mélange problem Content: Chaotic mass transport deposits (olistostromes) are a key for understanding the

	rooms 213-214-215 Poster session	<p>processes of mélange formation and the mechanics of accretionary wedges and orogenic chains. In turn, the study of polygenetic mélanges sheds new light on the origin and the variety of mass transport deposits, giving new basin-wide case studies.</p> <p>15:00 <i>MIGRIS Company Profile Presentation by Matthias Daszinnies</i></p> <p>15:15 <i>VBPR Company Profile Presentation by Benjamin Bellwald</i></p> <p>15:30 – 18:00 PCDP meetings</p> <p>18:00 – 21:00 Poster session and drinks</p>
Tuesday 17/9	09:00 -20:00 Bologna CNR – Congress center Theme-focused workshop Room 215 rooms 213-214-215	<p>7 Student presentations (3.5 hours 9:00-13:00)</p> <p>13:00 – 14:00 Lunch</p> <p>14:00 <i>Key-note Lecture by Brunetti: Statistical models for the evaluation of landslide hazard. Terrestrial and extra-terrestrial cases</i></p> <p>14:50 <i>Key-note Lecture by Ogata: Fossil MTC/MTDs, case studies around the world: great differences and a general genetic model?</i></p> <p>16:00 – 18:00 PCDP meetings</p> <p>20:00 Social Dinner at La Capriata restaurant downtown</p>
Wednesday 18/9	08:30 -12:00 Bologna CNR – Congress center Technical Workshop Room 215	<p>Introductory notes to the field trip, field evidence and internal structure of MTDs</p> <ul style="list-style-type: none"> • Structures inside fossil MTC/MTDs as diagnostic tools for understanding their movement and dynamics (Ogata) 30 min • From “mente et malleo” to remote sensing and 3D studies of outcrops (Pini) 30 min

	<p>Around Lunch time. Bus departure to Field trip</p> <p>Dinner on site</p>	<ul style="list-style-type: none"> • Electric worms: reconstructing MTDs features form CT scan on sediment cores (Venturi-Pini) 30 min • Intro to field trips: the MTC/MTDs in the sedimentary record of the Northern Apennines (Pini-Lucente) 30 minutes <p>14:00 Field Trip: Cohesive debris flow, Castel San Pietro Terme, Valle del Sillaro (near Bologna, map 2); channels in the Tortonian Marnoso-arenacea turbidite complex and their collapses, Fontanelice. Leading field assistant: Pini – Gamberi</p> <p>19:00 MTDs-watching drink and dinner at “La Cantinetta” agriturismo in Fontanelice</p>
Thursday 19/9	<p>Early morning Bus departure. Evening Return to Bologna. Dinner free</p>	<p>7:00 Field Trip: Specchio MTCs, Specchio (Parma, map 3). Leading field assistant: Ogata.</p> <p>7 km hiking and walking, no climb.</p>
Friday 20/9	<p>Early morning Bus departure</p> <p>Evening. Return to Bologna. Dinner free</p>	<p>7:00 Field Trip: Marnoso Arenacea Fm. Appennino Romagnolo (SE of Bologna, maps 4,5). Crespino-Bibbiana (Palazzuolo sul Senio – Marradi as bad weather alternative), Leading field assistants: Gamberi. Lucente, Pini. 9 km hiking 600 m climb.</p>
Saturday 21/9	<p>09:00-19:00 Bologna CNR – Congress center</p> <p>Transferrable skills</p> <p>Workshop, ESRs only</p> <p>Room 213</p>	<p>Dr. Andrea Brunello (Jet propulsion Theatre): Science dramaturgy: creating an exciting story taking inspiration from science</p>

List of additional hotels located nearby railway station, We Bologna hostel and bus lines to CNR

Hotel Il Guercino Via Luigi Serra, 7, 40129 Bologna <https://www.guercino.it/it/index.html>

Hotel Mercure Bologna Centro Viale Pietro Pietramellara, 59, 40121 Bologna
<https://www.accorhotels.com/it/hotel-1310-mercure-bologna-centro/index.shtml#origin=mercure>

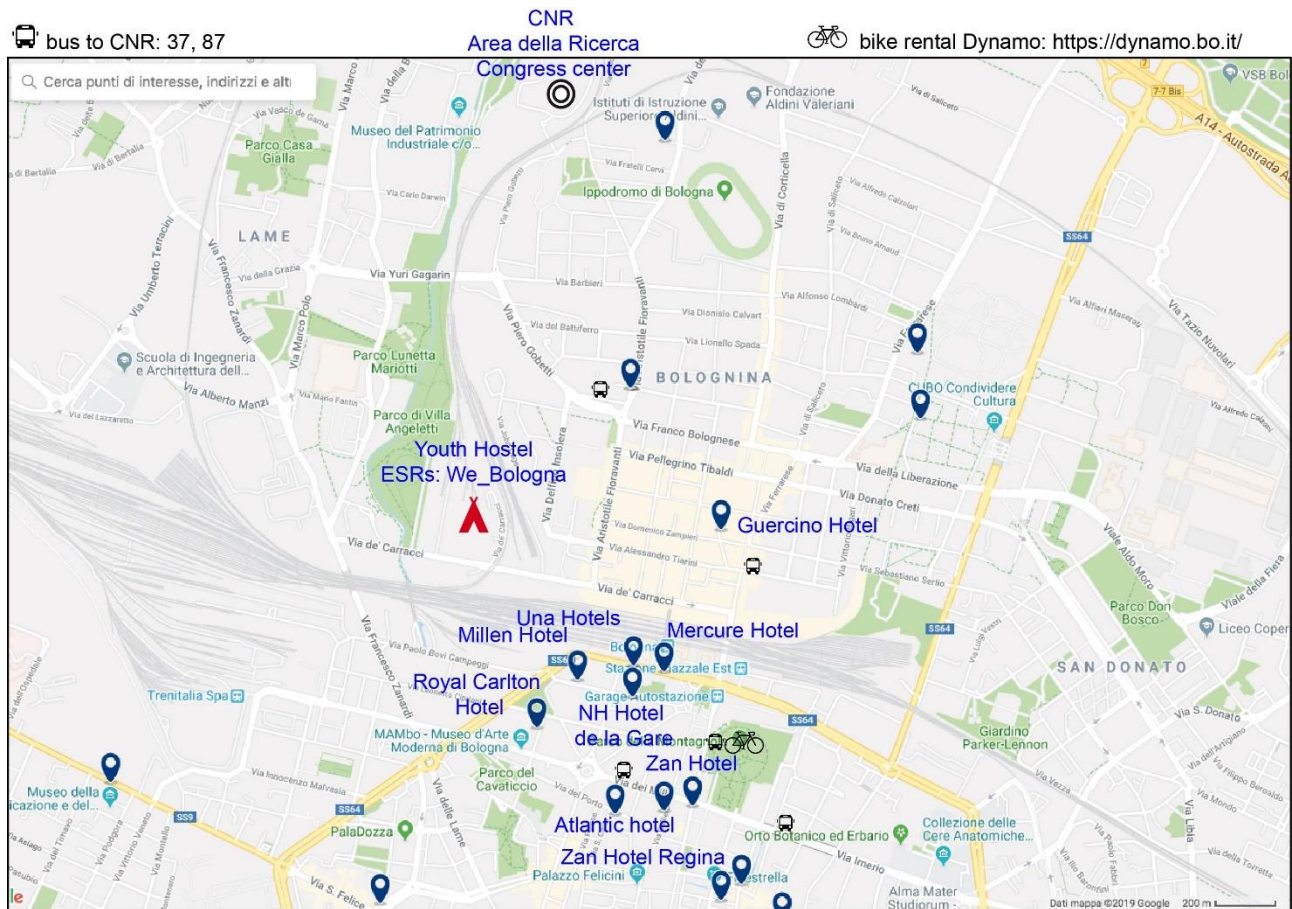
Zanhotel Regina Via dell'Indipendenza, 51, 40121 Bologna <https://www.zanhotel.it/hotel-regina-bologna>

Zanhotel Europa Via Cesare Boldrini, 11 - 40121 Bologna <https://www.zanhotel.it/hotel-europa-bologna>

Hotel Atlantic Bologna Via Galliera, 46, 40121 Bologna <http://www.hotelatlanticbologna.it/>

UNA Hotel Bologna Viale Pietro Pietramellara, 41, 40121 Bologna
https://www.gruppouna.it/unahotels/unahotels-bologna-centro?gclid=Cj0KCQjw9pDpBRCKARIsAOzRzitFPHYURcx0oCM1i4u58Ord9ap4nIMj5vQtp9YvoFOmetuNG5Z8Jk4aAIUJEALw_wcB

Hotel NH Bologna De La Gare Piazza XX Settembre, 2, 40121 Bologna https://www.nh-hotels.it/hotel/nh-bologna-de-la-gare?campid=8435708&utm_campaign=paid-search_brand&utm_source=google&utm_term=italian-all&utm_medium=paid-search&gclid=Cj0KCQjw9pDpBRCKARIsAOzRziU-d2THR3dyfQIAiTBmsWcayl4k1WEoZU-0kmRIJgi4ow1YPTCAEkaAi7bEALw_wcB



Map 1: hotels, venue location.

Field trips brief description

Wednesday 18/9

Departure by bus at 14:00 from CNR, direction Castel San Pietro Terme (BO, around 40 minutes' travel time). Difficulties: none, minimum walking. Dress code: casual, hiking shoes, long trousers, check in advance for variable weather conditions, be prepared for staying over dinner at site. Packed lunch provided by the organization, if special dietary needs please refer to Marzia.

Stops 1 and 2: panoramic view over Ligurian and Epiligurian units and olistostromes. Stop 3 (by bus) in the neighbourhood of Marzocchina: detailed field analysis of an olistostrome outcropping inside a thalweg. Stop 4 (by bus) junction to Gesso-Sellustra: panoramic view of the contact between Ligurian units and foredeep deposits. Stop 5 (by bus) junction to Sconcola: panoramic view over deposits of the late Miocene Messinian Salinity Crisis. Stop 6 (by bus) close to Fontanelice: panoramic view over channels in the Marnoso-Arenacea Formation (Tortonian). Stop 7 (by bus): panoramic view of more recent channels, affected by gravity flows and other landslides of the Vena del Gesso Formation. Drinks and dinner at restaurant "La Cantinetta".

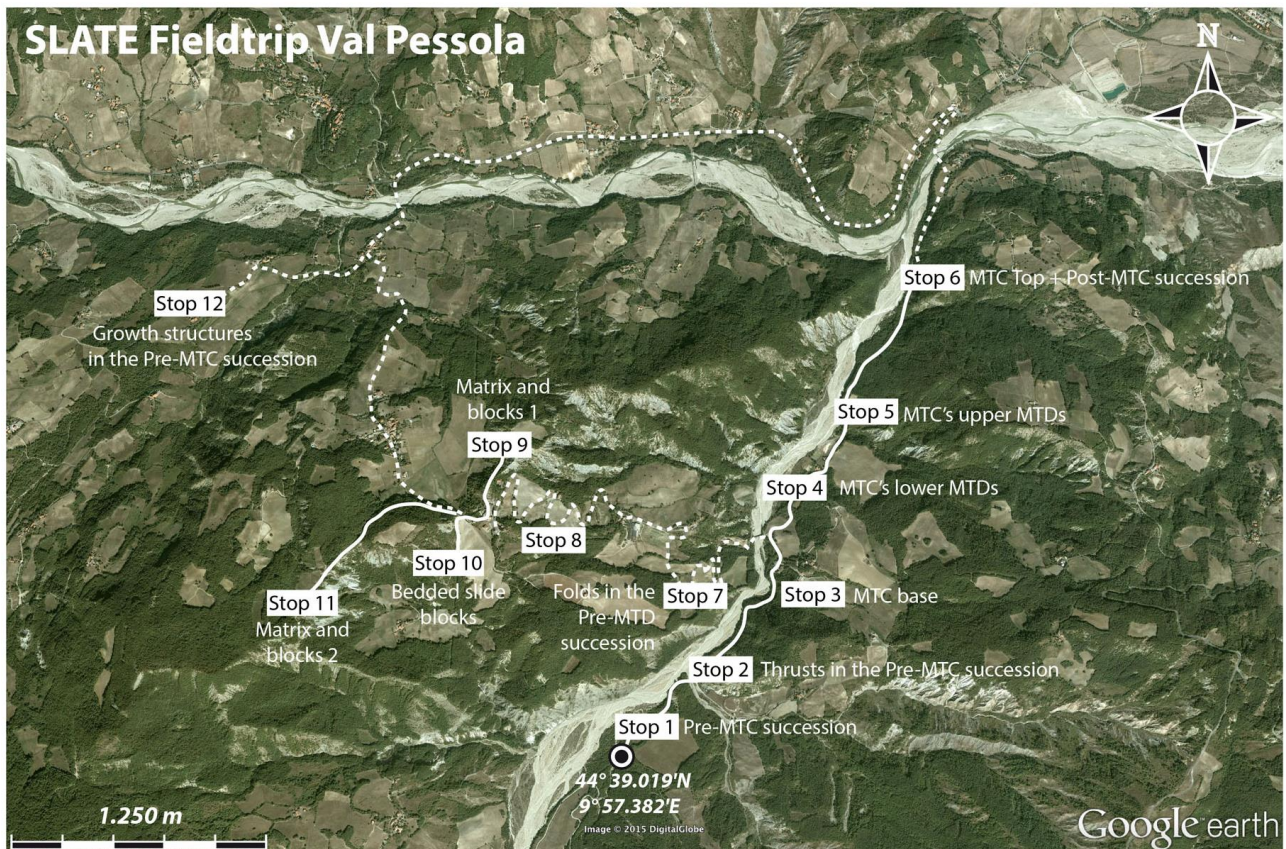


Map 2: field trip to cohesive debris flow, Castel San Pietro Terme, Valle del Sillaro, Romagna Apennines.

Thursday 19/9

Departure by bus at 7 from Hostel We_Bologna, direction Varano dei Melegari (PR, around 1 ½ hour travel time). Difficulties: low, walking between some outcrops, around 7 km in total. Dress code: casual, hiking shoes, long trousers, check in advance for variable weather conditions, return back before dinner. Packed lunch provided by the organization, if special dietary needs please refer to Marzia.

Stop 1: walking till stop 6 along the road. Stop 7 (by bus): walking between stops 9 and 11. Stops 12 (by bus). Major elements of interest shown in map 3.

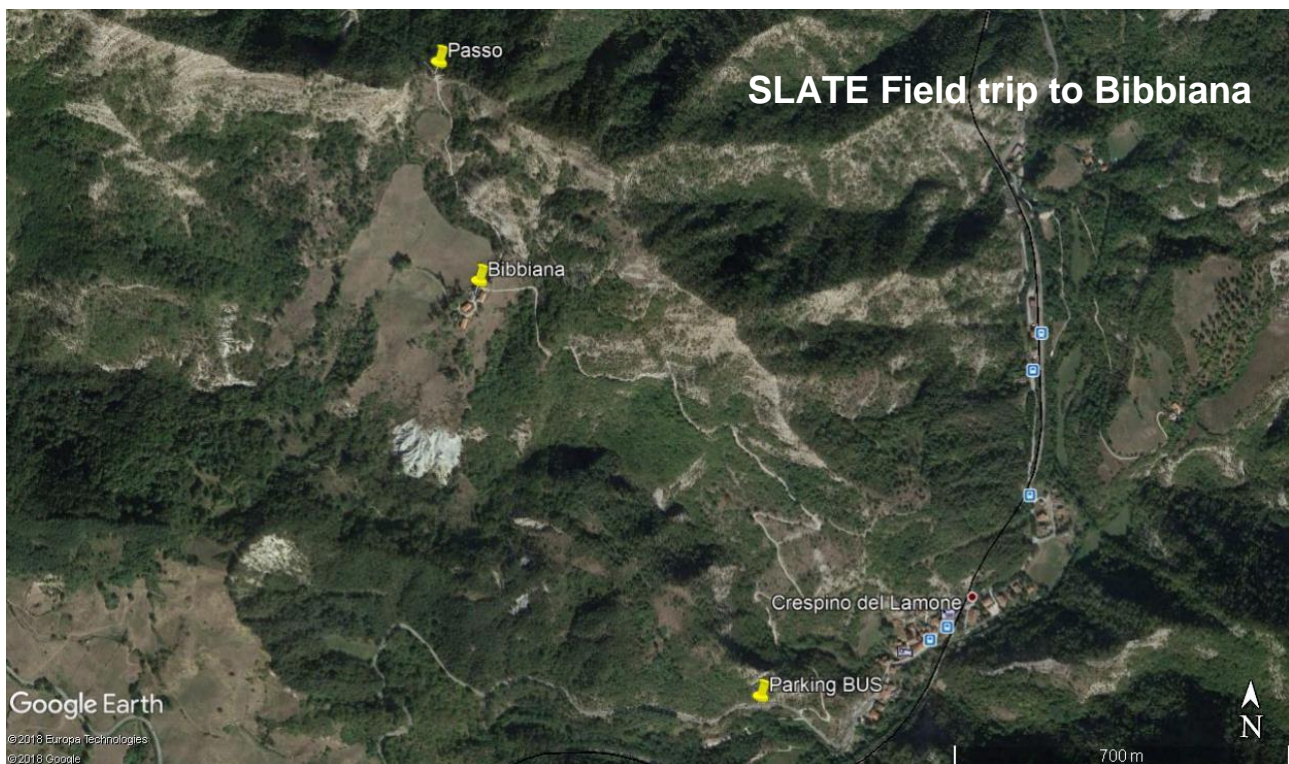


Map 3: field trip to different MTCs and MTDs in the Parma Apennines.

Friday 20/9

Departure by bus at 7 from Hostel We_Bologna, direction Crespino sul Lamone (FI, around 1 ½ hour travel time). Difficulties: medium to high, day-long hiking and climbing (300 m drop from Bus stop to Bibbiana and the “Passo” in map 4, from 552 to 820 m a.s.l.) for 8 km (return trip, up and down on walking paths). The bus will let us downhill and the rest of the day will be spent at the outcrop with no facilities in the surroundings. Dress code: casual, hiking shoes, long trousers, check in advance for variable weather conditions, return back before dinner. Packed lunch provided by the organization, if special dietary needs please refer to Marzia, one small bottled water will be provided to each participant but if need more, be prepared on your own.

During the climbing to Passo there will be several stops to observe and describe the sedimentary succession underlying the Casaglia-Monte della Colonna MTD, which is affected by the MTD displacement up to the base surface of the MTD. The climbing will reach up to the top of the MTD and again down to the base in another point.



Map 4: field trip to Crespino del Lamone, Plan A, MTDs in the Romagna Apennines.

Plan B in case of bad weather conditions: arrival at Palazzuolo sul Senio, several stops by bus along the road (e.g. stop Acquadalto slump; Casaglia-Monte della Colonna MTD in map 5). By bus to Colla di Casaglia and Marradi, stop to observe the top of the MTD, the overlying marls and the base of the MTD.



Map 5: field trip to Palazzuolo sul Senio, Plan B, MTDs in the Romagna Apennines.