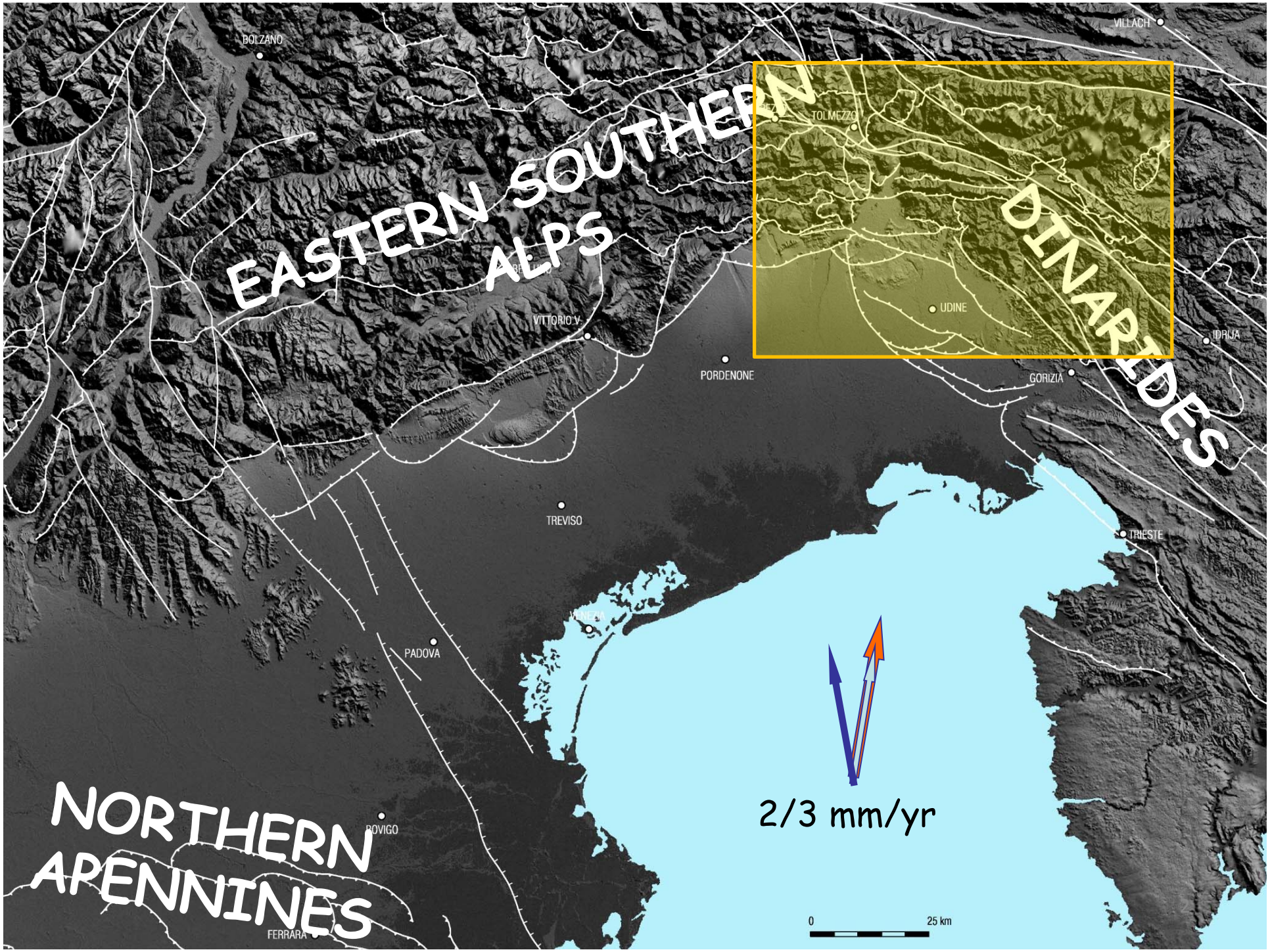
36° Convegno
Trieste, 14-16 novembre 2017

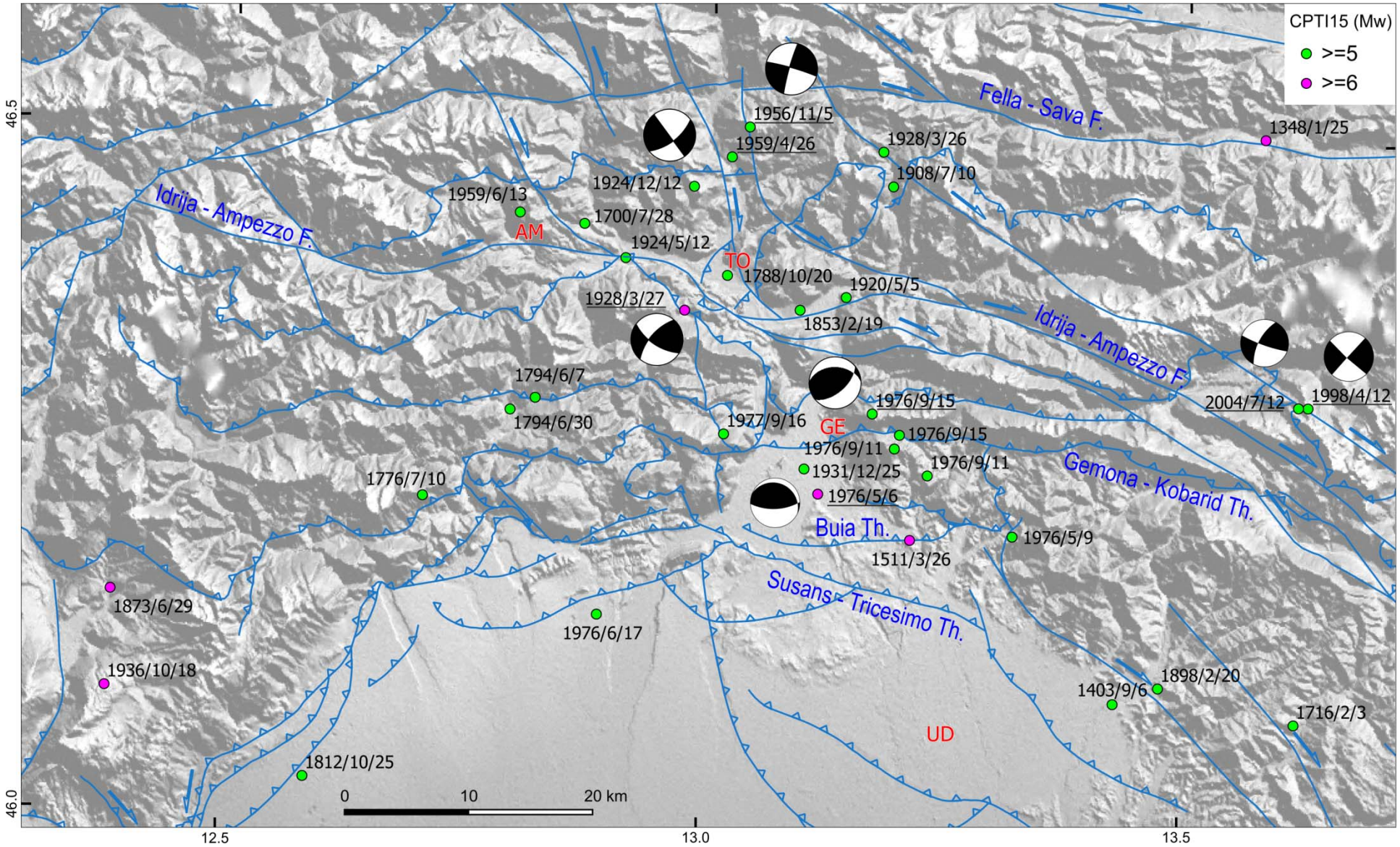
A NEW SEISMOTECTONIC MODEL FOR THE FRIULI AREA

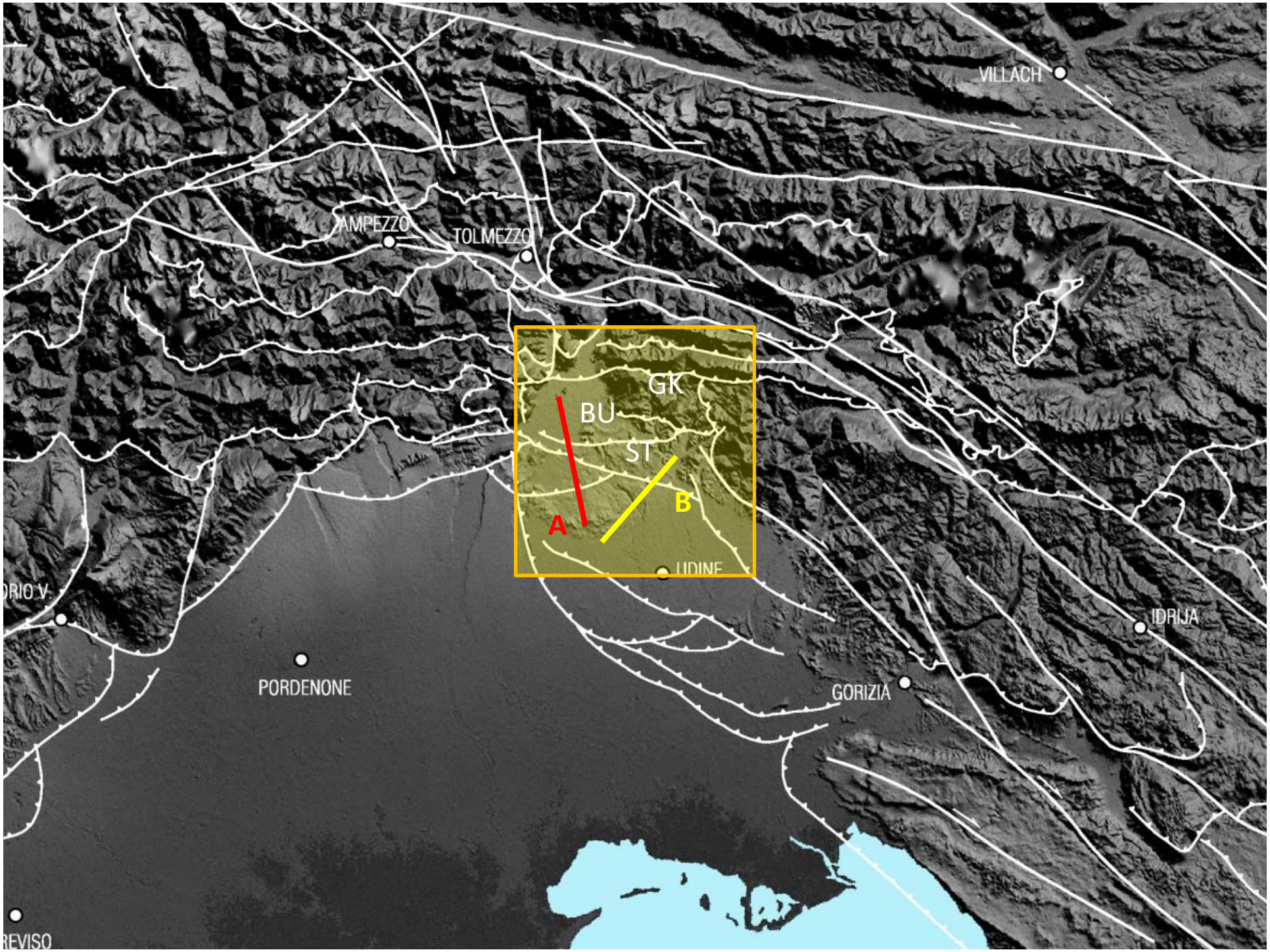
M.E. Poli [1] and A. Zanferrari [1]

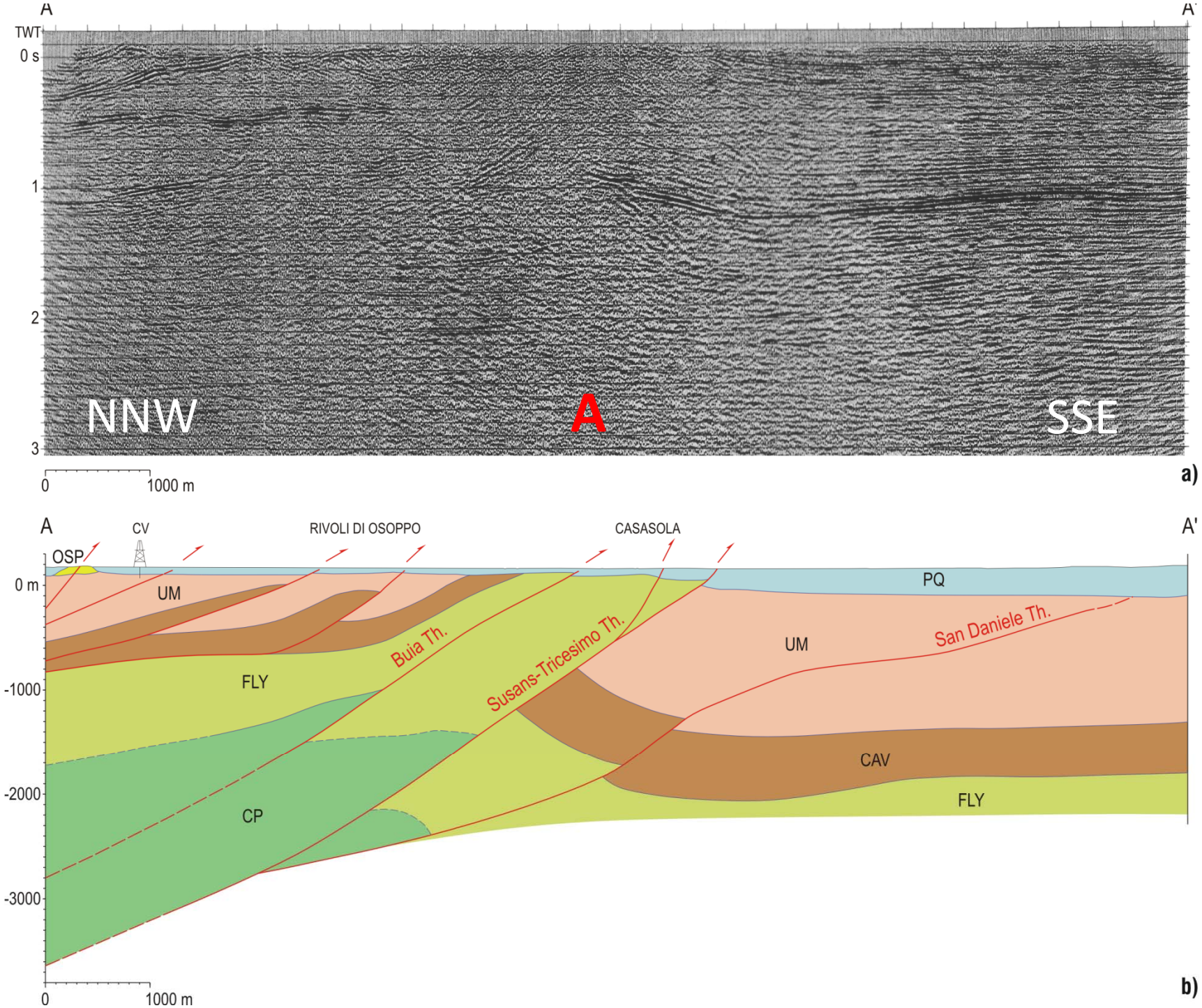
[1] University of Udine

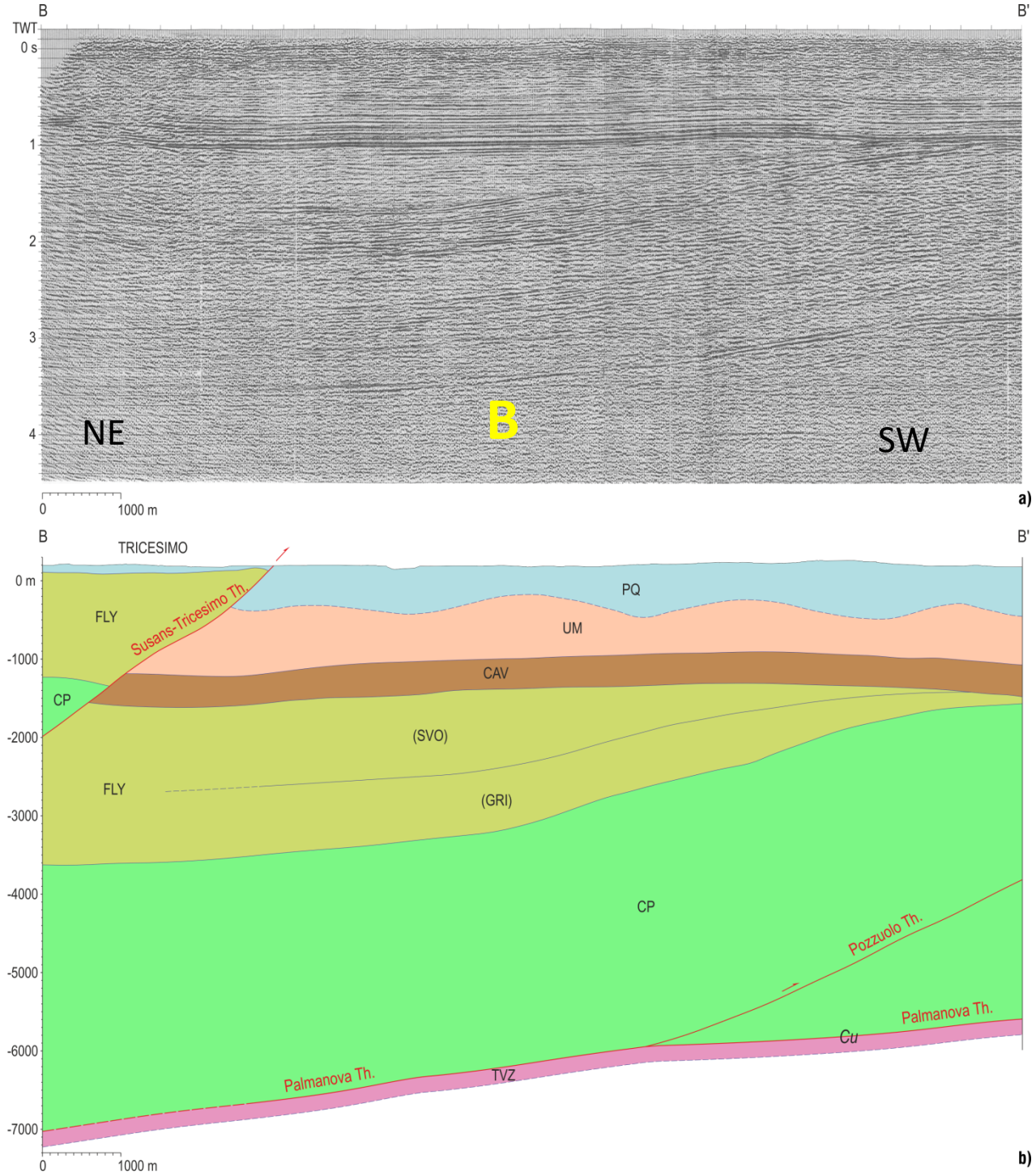
Sessione 1.2
Processi tettonici attivi: confronto fra dati osservazionali e modelli interpretativi

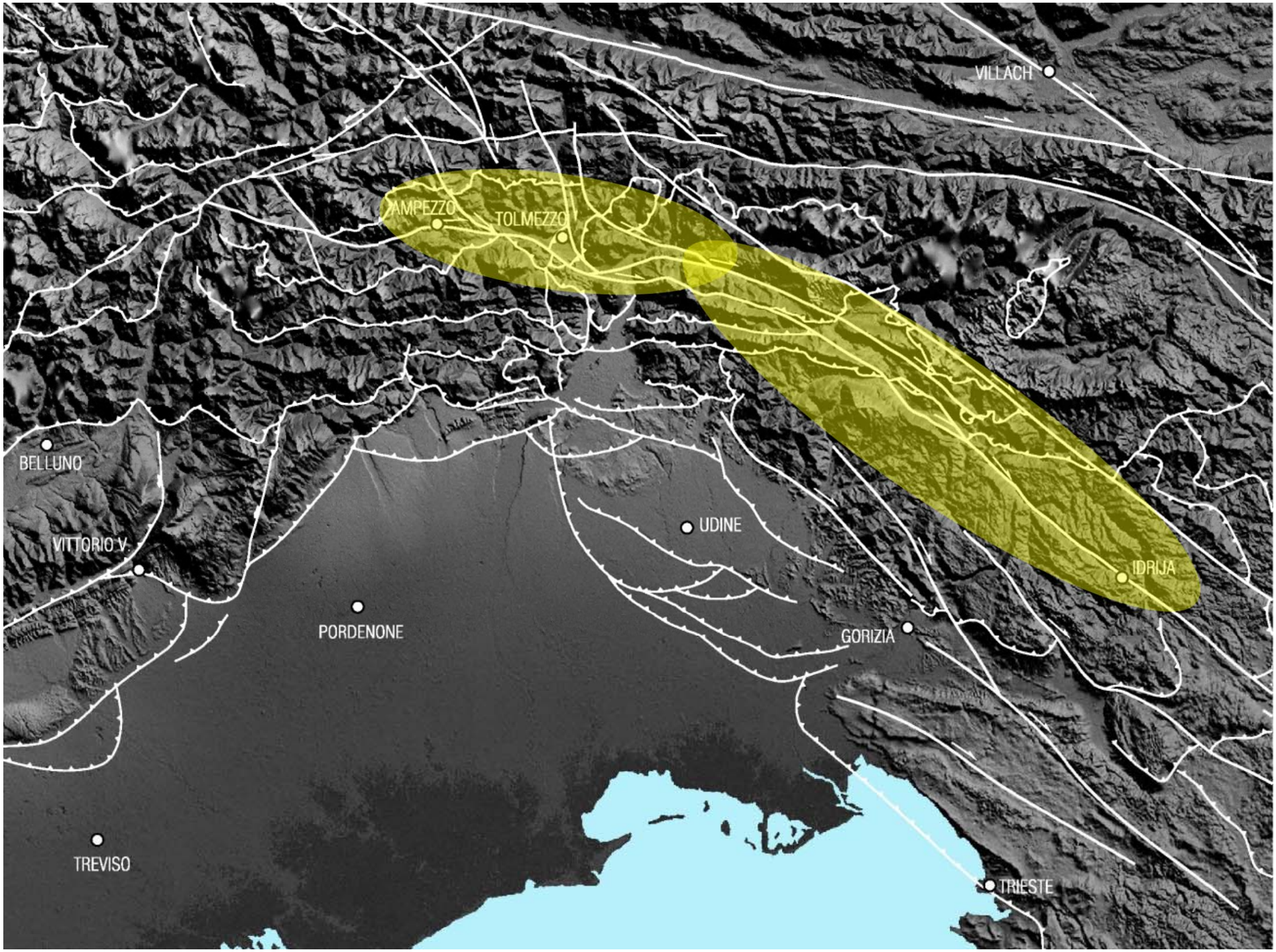

EASTERN SOUTHERN ALPS
DINARIDES
NORTHERN APENNINES
BOLZANO
VILLACH
TOLMEZZO
UDINE
VITTORIO V.
PORDENONE
GORIZIA
IDRIJA
TREVISO
TRIESTE
VENEZIA
PADOVA
ROVIGO
FERRARA
2/3 mm/yr
0
25 km


CPTI15 (Mw)
>=5
>=6
Fella - Sava F.
Idrija - Ampezzo F.
Idrija - Ampezzo F.
Gemona - Kobarid Th.
Buia Th.
Susans - Tricesimo Th.
1956/11/5
1959/4/26
1928/3/26
1348/1/25
1908/7/10
1924/12/12
1959/6/13
1700/7/28
AM
1924/5/12
TO
1788/10/20
1920/5/5
1928/3/27
1853/2/19
1994/6/7
1994/6/30
1977/9/16
GE
1976/9/15
1976/9/15
1976/9/11
1931/12/25
1976/9/11
1976/5/6
1776/7/10
1511/3/26
1976/5/9
2004/7/12
1998/4/12
1873/6/29
1976/6/17
1936/10/18
1898/2/20
1403/9/6
1716/2/3
UD
1812/10/25
0
10
20 km
46.5
46.0
12.5
13.0
13.5


VILLACH
AMPEZZO
TOLMEZZO
GK
BU
ST
A
B
UDINE
IDRIJA
PORDENONE
GORIZIA

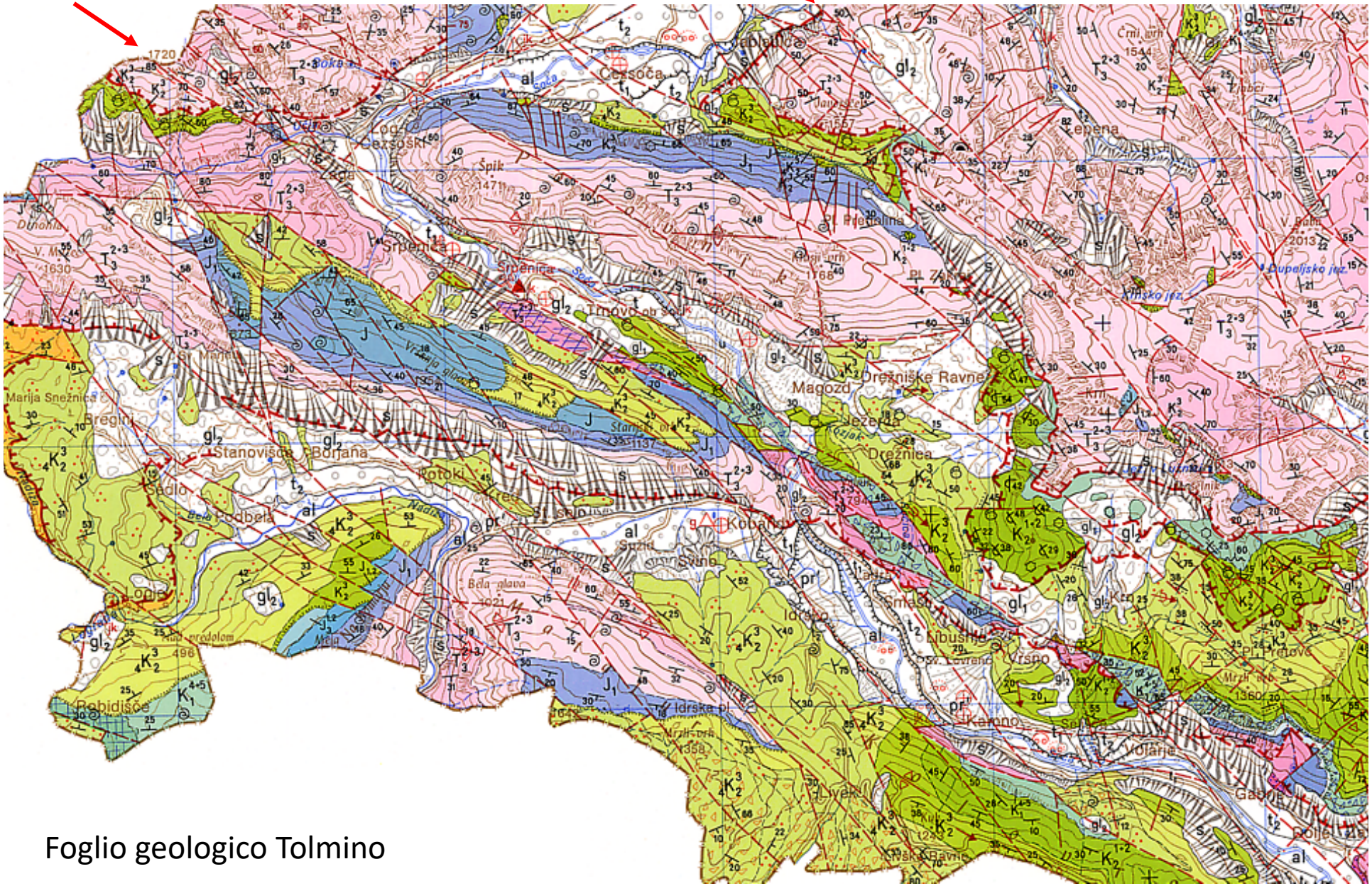

A
A'
TWT
0 s
1
2
3
NNW
A
SSE
0
1000 m
a)
A
CV
RIVOLI DI OSOPPO
CASASOLA
A'
OSP
0 m
-1000
-2000
-3000
UM
PQ
Buia Th.
Susans-Tricesimo Th.
San Daniele Th.
UM
FLY
CAV
FLY
CP
0
1000 m
b)


B
B'
TWT
0 s
1
2
3
4
NE
B
SW
0
1000 m
a)
B
B'
TRICESIMO
0 m
-1000
-2000
-3000
-4000
-5000
-6000
-7000
FLY
Susans-Tricesimo Th.
PQ
UM
CAV
CP
(SVO)
FLY
(GRI)
CP
Pozzuolo Th.
Palmanova Th.
Cu
Palmanova Th.
TVZ
0
1000 m
b)


VILLACH
AMPEZZO
TOLMEZZO
BELLUNO
VITTORIO V.
UDINE
IDRIJA
PORDENONE
GORIZIA
TREVISO
TRIESTE

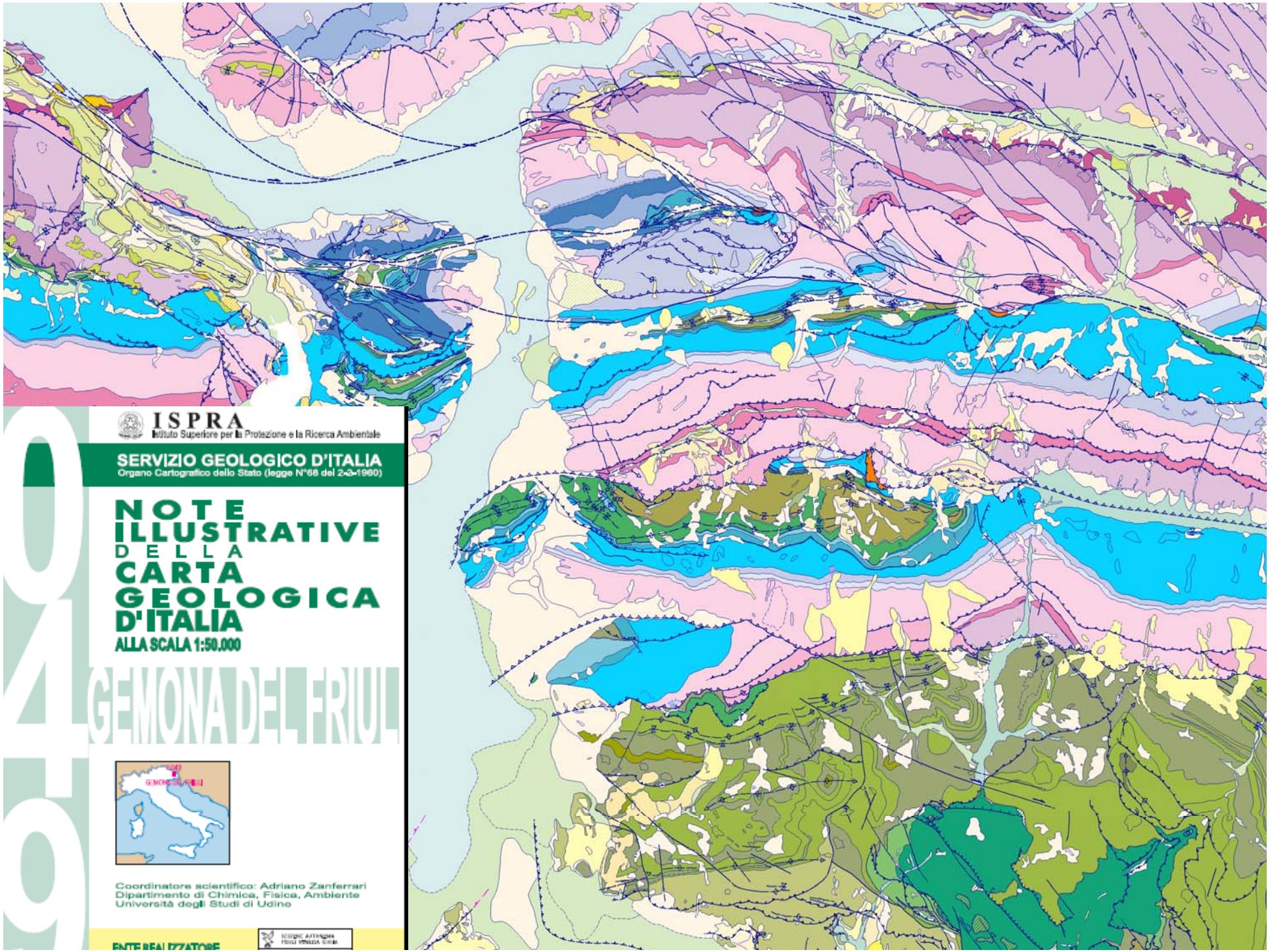
f. Idrija ss

f. Ravne



Foglio geologico Tolmino

Tolmin



ISPRA
Istituto Superiore per la Protezione e la Ricerca Ambientale

SERVIZIO GEOLOGICO D'ITALIA
Organo Cartografico dello Stato (legge N°68 del 2-2-1960)

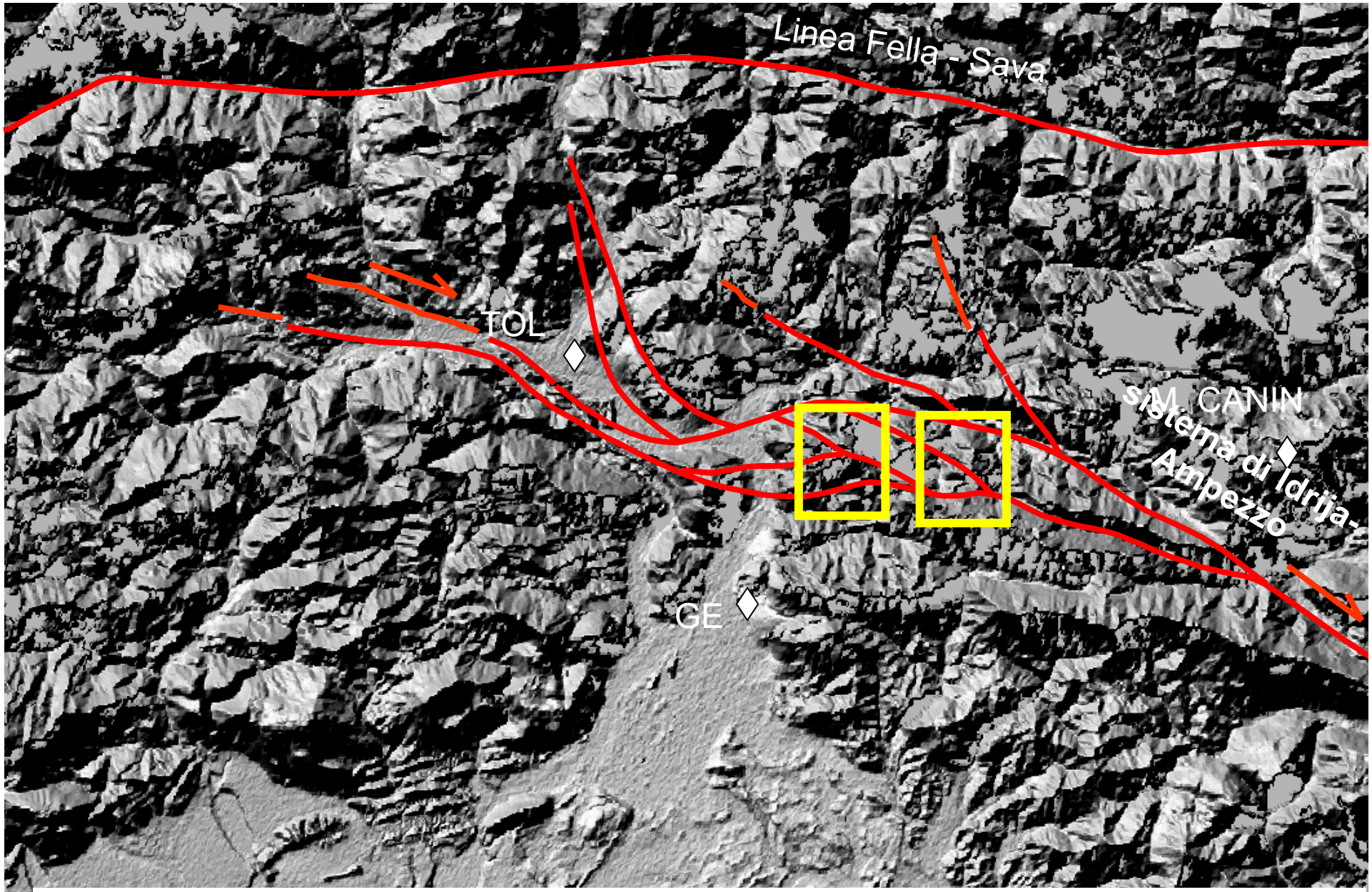
NOTE ILLUSTRATIVE DELLA CARTA GEOLOGICA D'ITALIA

ALLA SCALA 1:50.000

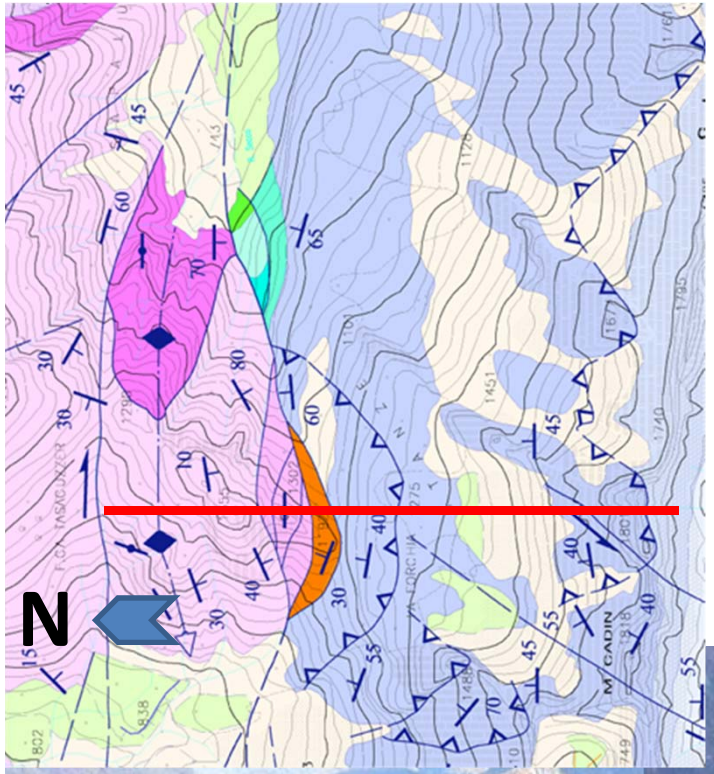
070 GEMONA DEL FRIULI

Coordinatore scientifico: Adriano Zanferrari
Dipartimento di Chimica, Fisica, Ambiente
Università degli Studi di Udine

ENTE REALIZZATORE



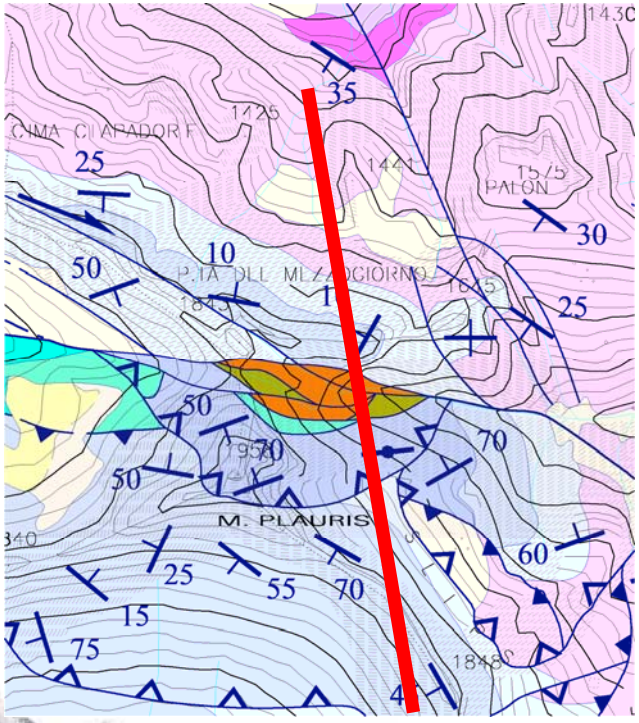
Attività tettonica del sistema Idrija –Ampezzo (Foglio geologico 049 - Gemona del Friuli – CARG)



LE DEFORMAZIONI NEL SUBSTRATO PRE-QUATERNARIO

Strike-slip duplex con fiore positivo

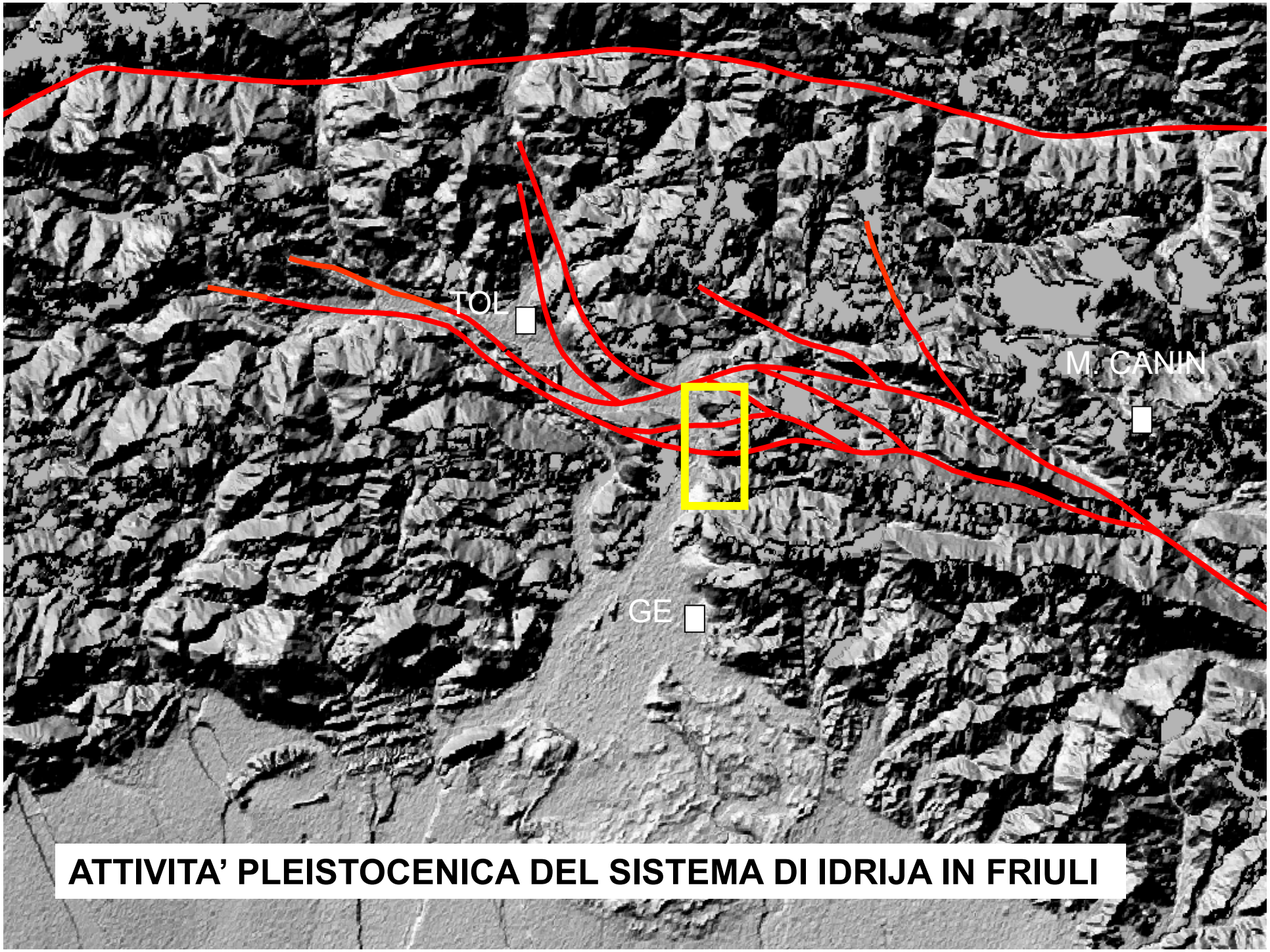
Strike slip duplex



S

M. Plauris

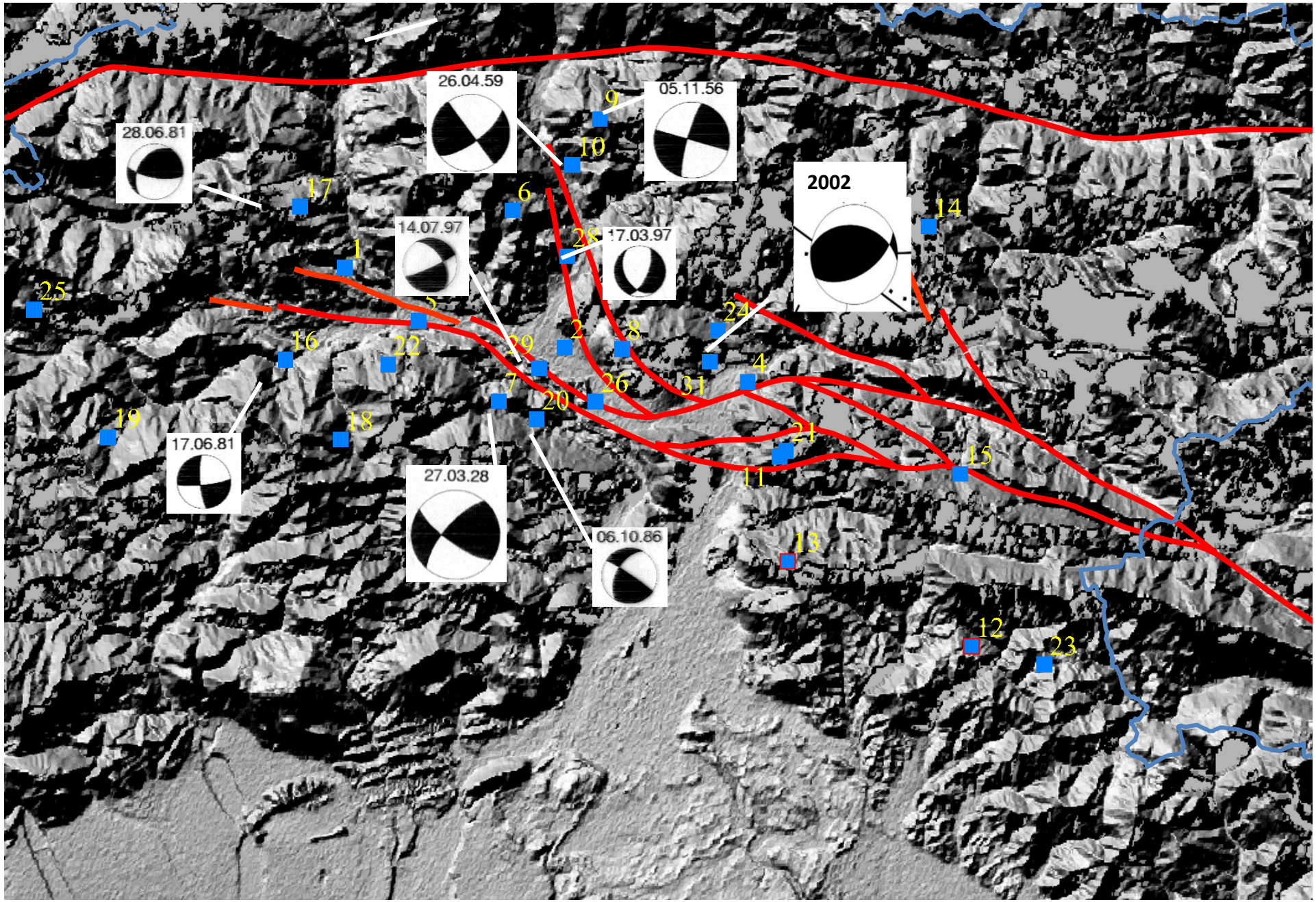
N



ATTIVITA' PLEISTOCENICA DEL SISTEMA DI IDRIJA IN FRIULI

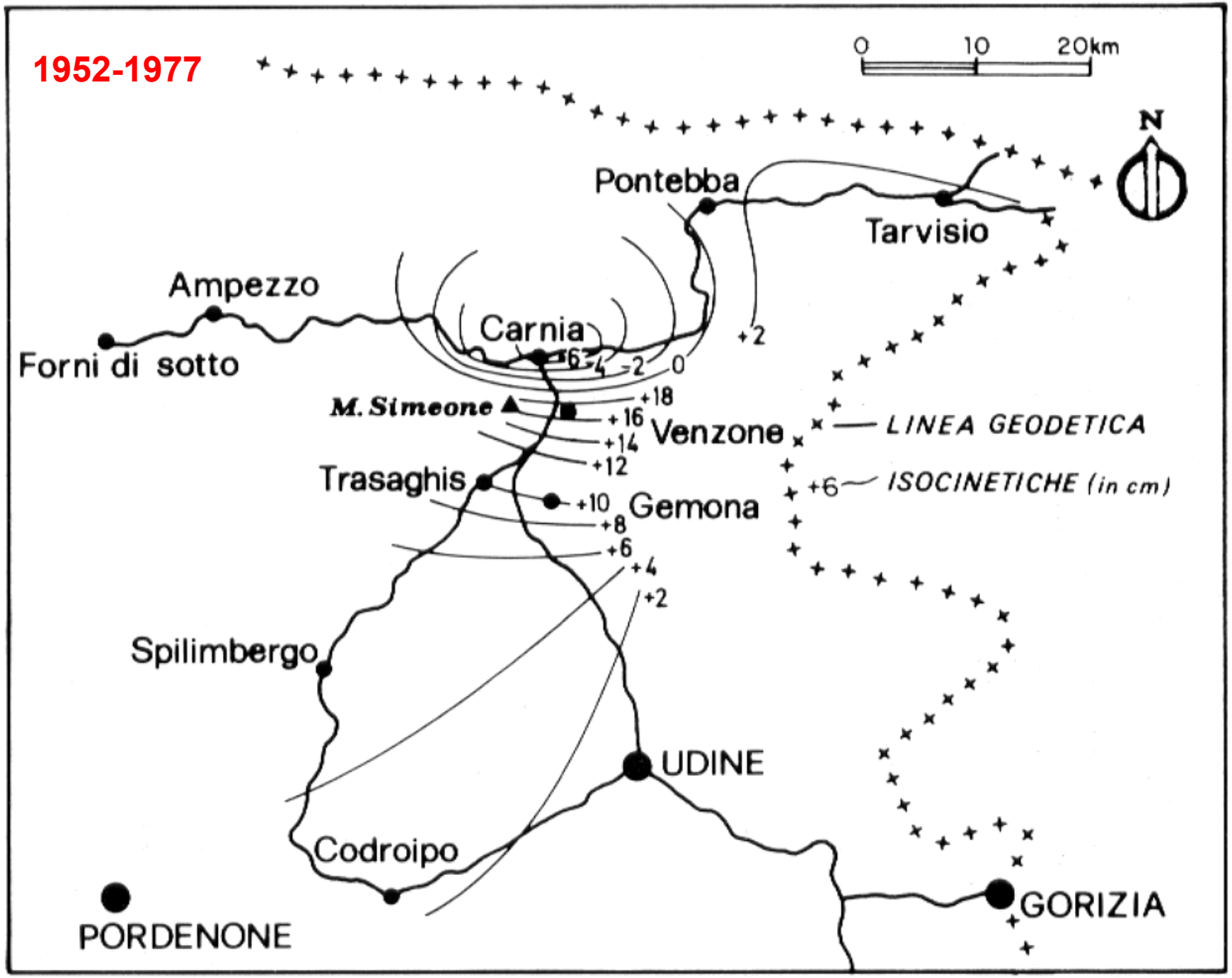
DEFORMAZIONI NEI TERRENI QUATERNARI

la deformazione del *sintema di Ampezzo* (AZO)
(brecce di versante con intercalazioni fluviali e lacustri), Pleistocene medio

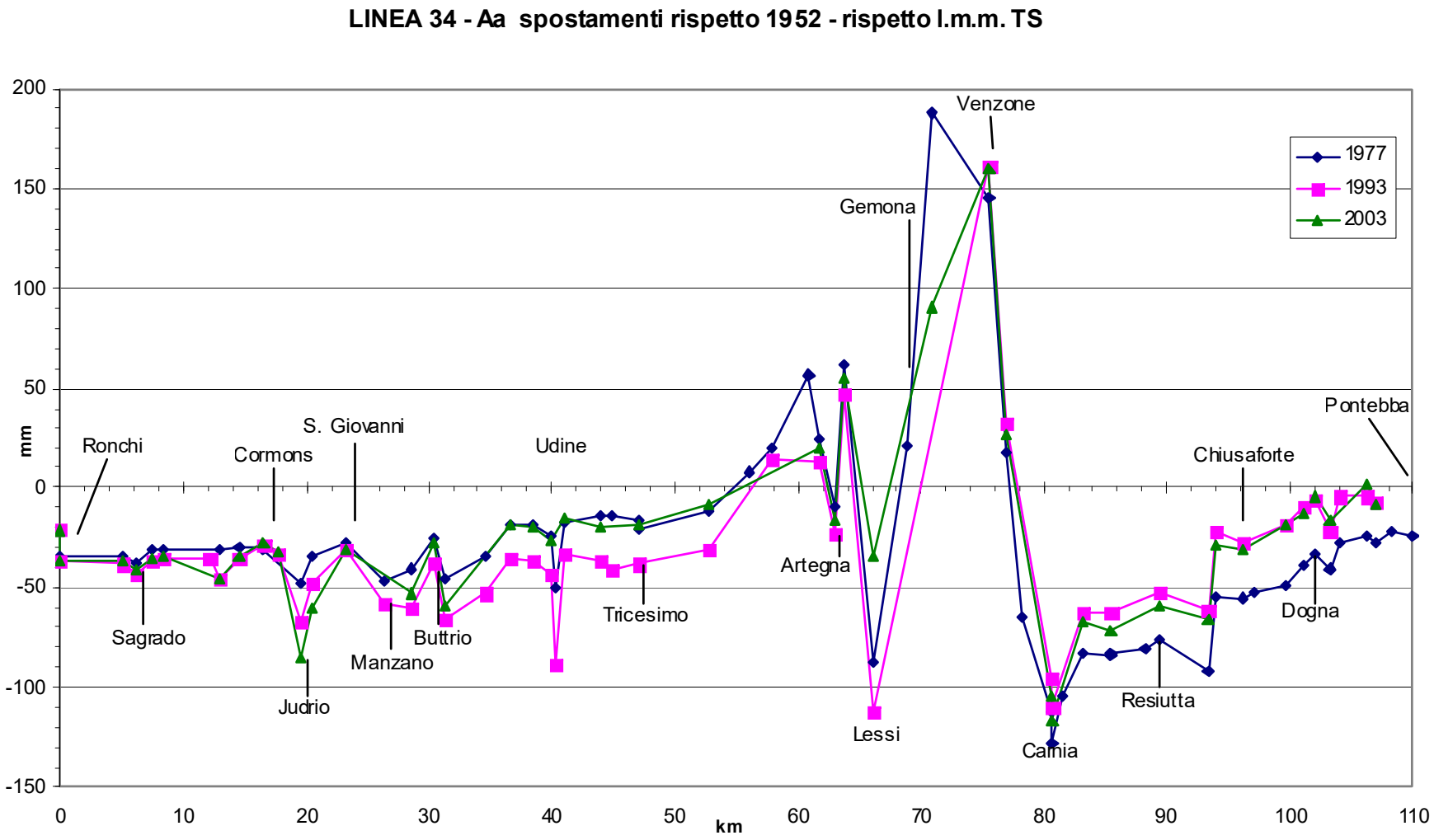


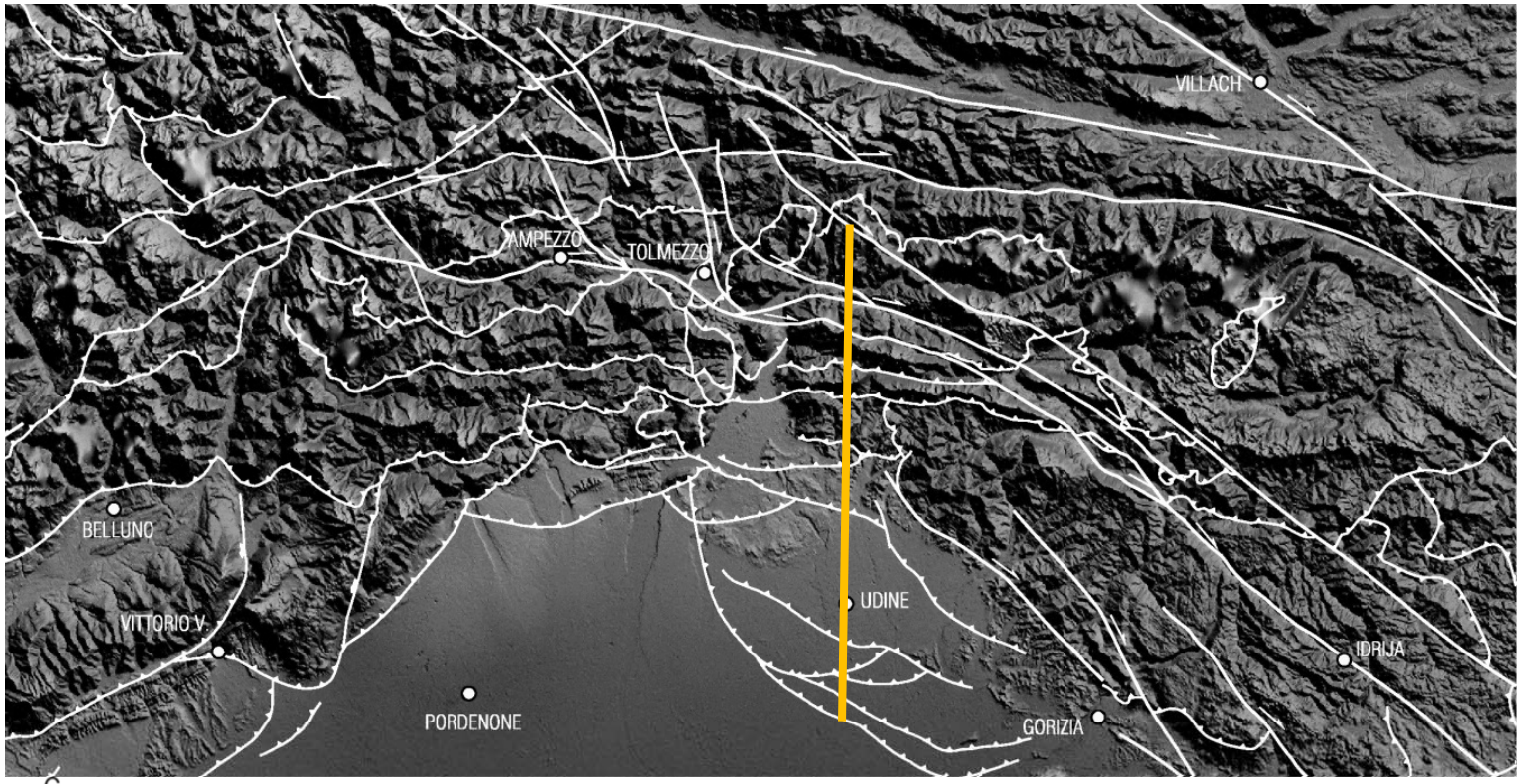
ATTIVITA' ATTUALE LUNGO LA FAGLIA DI IDRIJA: LA SISMICITA'

i risultati della ripetizione della livellazione di alta precisione dell'IGMI: Talamo et al., 1978



e delle ripetizioni del 1993 e 2003




VILLACH
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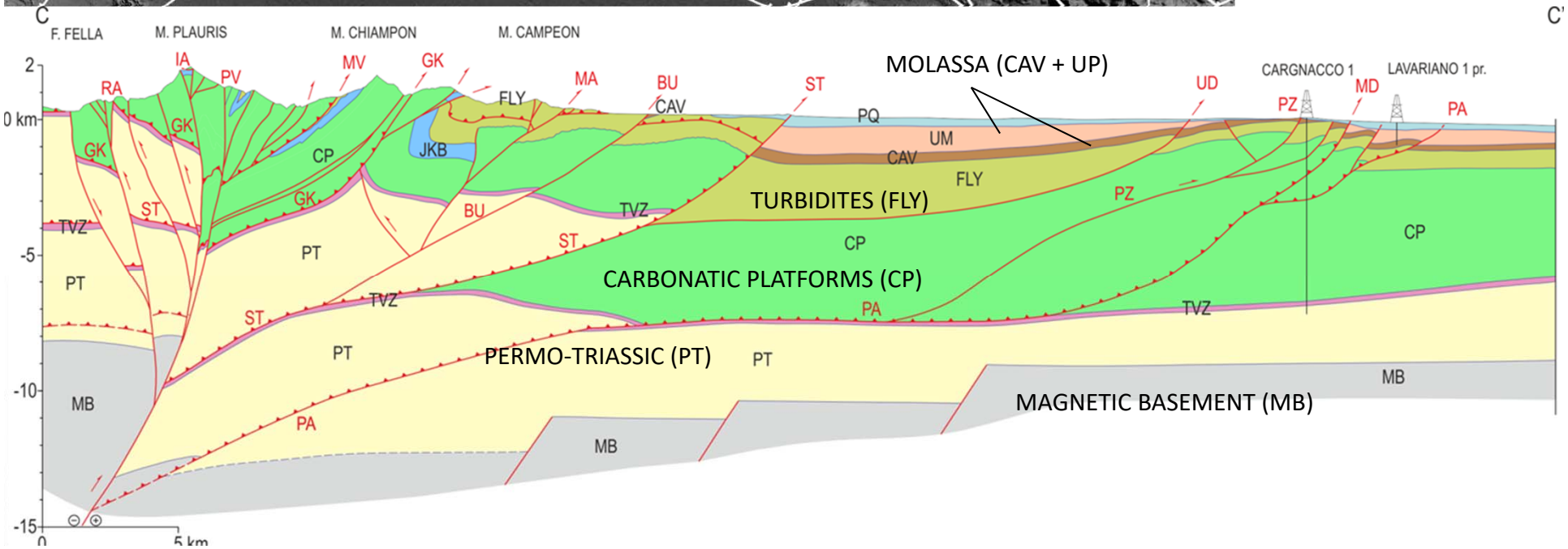
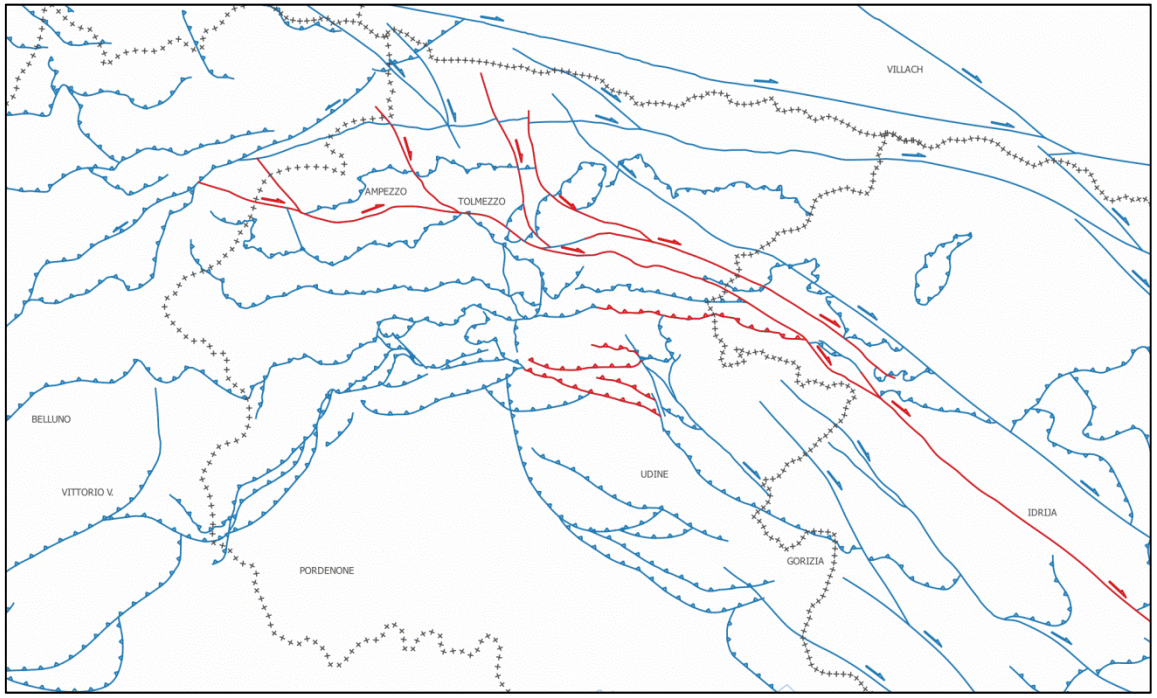

C
C'
F. FELLA
M. PLAURIS
M. CHIAMPON
M. CAMPEON
MOLASSA (CAV + UP)
CARGNACCO 1
LAVARIANO 1 pr.
TURBIDITES (FLY)
CARBONATIC PLATFORMS (CP)
PERMO-TRIASSIC (PT)
MAGNETIC BASEMENT (MB)
0 km
-5
-10
-15
0
5 km

CONCLUSIONS

. Geological, geophysical and seismological evidence allow to hypothesize that the low angle SSW-verging thrust-system of the Julian Prealps (i.e. Gemona-Kobarid, Susans-Tricesimo and Buia thrusts) is structurally joined with the Idrija-Ampezzo strike-slip fault system.



. Active deformation along the Idrjia–Ampezzo strike slip fault and the available knowledge on the kinematics of the region, suggest that the transpressive slip-kinematics is probably partitioned between the Idrjia-Ampezzo strike slip fault-system and the compressive contractional thrust-belt developing along the Julian prealpine area.

. Slip partitioning displacement in the frame of oblique convergence has been observed in many cases, both as for the coseismic and long-term displacements.

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