

Legend

| Structures | Post-orogenic sediments | Cenozoic magmatic rocks |
|--|--|---|
| <div><div><div><div></div><div>Fault in general (certain / assumed, in the North Alpine Foreland: deduced from seismic data)</div></div><div><div></div><div>Normal fault (certain / assumed)</div></div><div><div></div><div>Variscan fault (certain / assumed)</div></div><div><div></div><div>Thrust fault, limit of nappes or slices (certain / assumed)</div></div></div><div><div><div><div></div><div>Major fault (certain / assumed): Canavese Fault [Ca], Tonale Fault [To], Giudicarie Fault [Gi], Rhône-Simplon Fault [RS], Centovalli Fault [Ce], Aosta-Ranzola Fault [AR], Engadine Fault [En]</div></div><div><div></div><div>Axial trace of an anticline or antiform</div></div><div><div></div><div>Axial trace of a syncline or synform</div></div></div></div></div> | <div><div><div></div><div>Alluvial and glacial deposit (Quaternary; incl. Messinian–Pliocene south of the Alps)</div></div><div><div></div><div>Rock avalanche deposit</div></div></div> | <div><div><div><div></div><div>Volcanic rocks (Miocene)</div></div><div></div></div><div><div><div><div></div><div>Biella Volcanic Suite [Bi] (Oligocene), Colle Gallo [CG] and Gandino [Gd] subvolcanic bodies (Eocene)</div></div><div><div></div><div>Novate [No] and Bregaglia [Bg] intrusions (Oligocene), Adamello Batholith [Ada] (Eocene–Oligocene)</div></div></div><div></div></div><div><div><div></div><div>Hegau Volcanic Suite</div></div><div><div></div><div>Periadriatic Magmatic Province</div></div></div></div> |

| WEST | | EAST | | SOUTH ALPINE | | |
|---|---|--|---|---|-------------------------------------|--|
| <div><div><div>Ca</div><div>Canavese Zone</div></div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div><div></div><div>Volcanic and sedimentary rocks (Permian)</div></div><div><div>SCIC</div><div>Strona-Ceneri Zone p.p.</div></div><div><div>IV</div><div>Ivrea Zone</div></div></div> <div><div><div></div><div></div><div>Crystalline basement</div></div><div><div></div><div></div><div>Crystalline basement</div></div></div> <div><div><div></div><div></div><div>Sedimentary cover (Mesozoic–Paleogene)</div></div><div><div></div><div></div><div>Volcanic and sedimentary rocks (Permian)</div></div><div><div></div><div></div><div>Crystalline basement (Strona-Ceneri and Val Colla zones p.p.)</div></div></div> <div><div></div><div>Ivrea-Ceneri Complex [IC]</div></div> <div><div></div><div>Varesotto Imbricates [Va]</div></div> | | <div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div><div></div><div>Volcanic and sedimentary rocks (Carboniferous–Permian)</div></div><div><div></div><div>Crystalline basement (incl. Val Colla Zone p.p.)</div></div><div><div>SCO</div><div>Strona-Ceneri Zone p.p.</div></div><div><div></div><div>Sedimentary cover (Mesozoic–Paleogene)</div></div><div><div></div><div>Volcanic and sedimentary rocks (Permian)</div></div><div><div></div><div>Crystalline basement</div></div><div><div></div><div>Sedimentary cover (Mesozoic–Neogene)</div></div></div> <div><div><div></div><div></div><div>Upper Orobic Nappe [UO]</div></div><div><div></div><div></div><div>Lower Orobic Imbricates [LO] (incl. internal Giudicarie Zone [Gii])</div></div><div><div></div><div></div><div>Milano Belt [Mi] (incl. External Giudicarie Zone [Gie])</div></div></div> | | | | |
| | | | | AUSTROALPINE | | |
| | | | | Upper Austroalpine | | |
| <div><div><div>RM</div><div>Roggenstock-Mördergruebli Nappe</div></div></div> | <div><div><div></div><div>Sedimentary cover (Triassic)</div></div><div><div></div><div>“Phyllitgneiszone”</div></div><div>Crystalline basement</div></div> <div><div></div><div>Northern Calcareous Alps: Allgäu [Al], Lechtal [Le], Inntal [In] and Krabachjoch [Kr] nappes, Cenoman-Randschuppe [CR]; Schiahorn Nappe [Sn]</div></div> | <div><div><div></div><div>Sedimentary cover (Permian–Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>S-charl - Sesvenna Nappe [ScS] (incl. Tavrü Slice [Tü])</div></div></div> <div><div><div></div><div>Sedimentary cover (Triassic)</div></div><div>Crystalline basement</div></div> <div><div></div><div>Languard Nappe</div></div> | <div><div><div></div><div>Ötztal Nappe Complex [Ötz] (incl. Matsch Nappe [Mh])</div></div><div><div></div><div>Tonale Nappe [To] (incl. Ulten Unit [Ui])</div></div></div> <div><div><div></div><div>Sedimentary cover (Triassic)</div></div><div>Crystalline basement</div></div> <div><div>Qa</div><div>Quattervals Nappe</div></div> <div><div><div>Ort</div><div>Sedimentary cover (Permian–Cretaceous)</div></div><div>Crystalline basement</div></div> <div>Ortler Nappe</div> <div><div><div></div><div>Sedimentary cover (Permian–Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div></div><div>Campo Nappe Complex (Masuccio [CpM], Campo [CpC], Grosina [CpG], Laas [CpL] nappes, Vinschgau Shear Zone [CpV])</div></div> | | | |
| | | | | Lower Austroalpine | | |
| | | <div><div><div>RS</div><div>Rothorn-Schwarzhorn Nappe Complex</div></div><div><div>GC</div><div>Grüenhorn-Casanna Slice Complex</div></div></div> | <div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Bernina Nappe Complex [B] (incl. Ela nappe [Ela])</div></div></div> <div><div><div></div><div>Err Nappe Complex [Er]</div></div></div> <div><div><div></div><div>Stammerspitz Slice</div></div></div> | | | |
| | | | | SALASSIC | | |
| | | <div><div><div>DBV</div><div>Valpelline Unit</div></div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div><div>DBA</div><div>Arolla Unit</div></div><div><div>RCS</div><div>Roisan-Cignana Shear Zone</div></div><div><div>MMU</div><div>Upper Unit</div></div><div><div>MML</div><div>Lower Unit</div></div></div> <div><div><div></div><div></div><div>Dent Blanche Nappe</div></div></div> <div><div><div></div><div></div><div>Mont Mary Nappe</div></div></div> | <div><div><div>Se2</div><div>Second Dioritic-Kinzigtic Zone</div></div><div><div>SeM</div><div>Eclogitic Micaschist Unit</div></div><div><div>SeG</div><div>Gneiss Minuti Unit</div></div></div> <div><div><div></div><div></div><div>Sesia Nappe</div></div></div> | <div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Margna [Mar] and Sella [Sel] nappes</div></div></div> | | |
| Prealps | | | | PENNINIC | | |
| Upper Penninic | | | | Middle Penninic | | |
| <div><div><div>Br</div><div>Breccia Nappe</div></div><div><div>PM</div><div>Préalpes Médiannes Nappe</div></div><div><div>Sz</div><div>Zone Submédiane</div></div></div> | <div><div><div></div><div>Mesozoic</div></div><div><div></div><div>Permian–Triassic</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Ruitor [Ru], Upper Stalden [US], Siviez-Mischabel [SM], Mont Fort [MF], Portjengrat [Pj] and Stockhorn [Sk] nappes</div></div></div> <div><div><div></div><div>ZH</div><div>Zone Houillère</div></div></div> | <div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Monte Rosa Nappe</div></div></div> <div><div><div></div><div>Falknis [Fa], Sulzfluh [Sf] and Tasna [Ta] nappes, Fimber Zone [Fi]</div></div></div> <div><div><div></div><div>Sch</div><div>Schams Nappe Complex</div></div><div><div></div><div>Sedimentary cover (Permian–Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Tambo [Tb] and Suretta [Su] nappes</div></div></div> <div><div><div></div><div>Berisal [Be], Camughera [Cg] and Ruginenta [Rg] nappes</div></div></div> <div><div><div></div><div>Gj</div><div>Gälmji Zone</div></div></div> | | | | |
| Lower Penninic | | | | Lower Penninic | | |
| <div><div><div></div><div>Voirons [Vo] and Gurnigel [Gu] nappes</div></div><div><div></div><div>Niesen Nappe</div></div></div> | <div><div><div></div><div>Schlieren [Sc] and Wägital [Wä] nappes</div></div><div><div>SC</div><div>Sion-Courmayeur Nappe</div></div><div><div></div><div>Vals Slices [Va], Aul [Au], Grava [Gra] and Tomül [Ti] nappes</div></div><div><div>Ch</div><div>Chiavenna Nappe</div></div><div><div>Pf</div><div>Pfunds Nappe</div></div></div> <div><div><div></div><div>Üntschen [Ün], Sigiswang [Sig] and Oberstdorf [Ob] nappes, Triesenberg Slice Complex [Tri]</div></div></div> <div><div><div></div><div>Roz-Champatsch Mélange [RC], Ramosch Zone [Ra]</div></div></div> | | | | | |
| | | | | LEPONTIC | | |
| | | <div><div><div></div><div>Sedimentary cover (Mesozoic), Geisspfad ultramafitic rocks</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Monte Leone [ML] and Monucco [Mc] nappes</div></div></div> <div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Pizzo del Vallone Nappe [PV]</div></div></div> <div><div><div></div><div>Lb</div><div>Lebedun Nappe</div></div></div> <div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Verampio Nappe [Ve], Antigorio Nappe Complex (Antigorio Nappe [Ag], Mergoscia Zone [Mg])</div></div></div> | <div><div><div></div><div>Sedimentary cover (Mesozoic)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Maggia [Ma] and Sambuco [Sb] nappes</div></div></div> <div><div><div></div><div>Isorno [Is], Orselina-Bellinzona [OB], Bosco [Bo] and Bombogno [Bb] zones</div></div></div> <div><div><div></div><div>Ad</div><div>Adula Nappe</div></div><div><div>Gf</div><div>Gruf Complex</div></div></div> <div><div><div></div><div>Piz Terri - Lunschania [PL] and Soja [So] nappes, San Giorgio Slice [SG]</div></div></div> | | | |
| | | | | HELVETIC | | |
| Upper Helvetic | | | | Lower Helvetic | | |
| <div><div><div>Bu</div><div>Bulle Mélange Zone</div></div></div> | <div><div><div>Pi</div><div>Pillon Mélange Zone</div></div><div><div></div><div>Wildhorn Nappe Complex (Diablerets [Di], Mont Gond [MG] and Sublage [Sg] nappes)</div></div><div><div></div><div>Mont Chétif [MC] and Roselette [Ro] nappes</div></div></div> | <div><div><div></div><div>Habkern Mélange Zone [Ha], Iberg Mélange [Ib]</div></div><div><div>Ei</div><div>Internal Einsiedeln Slices</div></div><div><div>Dr</div><div>Drusberg Nappe</div></div><div><div>Ax</div><div>Axen Nappe</div></div><div><div></div><div>Camosci Nappe</div></div><div><div><div></div><div>Sedimentary cover (Permian–Mesozoic)</div></div><div>Volcanic and sedimentary rocks (“Verrucano”, Permian)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Tavetsch [Tv], Ilanz [Iz] and Gotthard [Go] nappes</div></div></div> | <div><div><div></div><div>Wildhaus Mélange [Wh], Liebenstein Nappe [Li]</div></div><div><div>Fi</div><div>Fläschberg Nappe</div></div><div><div></div><div>Säntis [Sä] and Hohenems [Ho] nappes</div></div><div><div></div><div>Glarus Nappe Complex [Gl] (incl. Wägeten Slice [Wa], Murtischen Nappe [Mü], Gonzen-Walenstadt Slices [GW])</div></div><div><div></div><div>Volcanic and sedimentary rocks (“Verrucano”, Permian)</div></div><div><div></div><div>Scopi Nappe [Sc], Piora-Peiden Slice Complex [PP]</div></div></div> | | | |
| | | <div><div><div></div><div>Subalpine Flysch Zone</div></div><div><div></div><div>Mättental Mélange</div></div><div><div></div><div>Griesstock [Gr] and Kammlistock [Ks] nappes, Clariden Slice Complex [Cl], Fiseten-Orthalden Slices [FO], Cavistrau Nappe [Cv]</div></div><div><div><div></div><div>Flysch (Paleogene; incl. Molasse Rouge of Monthey)</div></div><div>Mesozoic–Paleogene</div></div><div><div></div><div>Volcanic and sedimentary rocks (Carboniferous–Permian)</div></div><div>Crystalline basement</div></div> <div><div><div></div><div>Autochthonous-parautochthonous sedimentary cover</div></div></div> <div><div><div></div><div>External Massifs: Belledonne [Bel], Aiguilles Rouges [AR], Mont Blanc [MB] and Aar [Aa] massifs</div></div></div> | <div><div><div></div><div>Schabell Mélange and Tschingelhörner Slices [Sbl], Chropfsberg-Pizalun Slices [CP]</div></div><div><div>Sa</div><div>Sardona Nappe</div></div><div><div>Bl</div><div>Blattengrat Nappe</div></div><div><div>BR</div><div>Bad Ragaz Nappe</div></div></div> | | | |
| | | | | DETACHED NORTH ALPINE FORELAND | | |
| | | | | Subalpine Molasse | | |
| | | | | Internal Folded Jura and Foreland Plateau | | |
| | | | | External Folded Jura | | |
| Bresse Graben | | Haute-Saône Platform | | Upper Rhine Graben | | |
| <div><div><div>BG</div><div>Paleogene–Neogene</div></div><div></div><div>Mesozoic</div></div> | <div><div><div>HS</div><div>Paleogene–Neogene</div></div><div><div>HS</div><div>Mesozoic</div></div><div><div></div><div>Permian</div></div><div><div>HS</div><div>Crystalline basement of the Vosges Massif</div></div></div> | <div><div><div>URG</div><div>Paleogene–Neogene</div></div><div></div><div>Mesozoic</div></div> | <div><div><div>SGe</div><div>Paleogene–Neogene</div></div><div><div>SGe</div><div>Mesozoic</div></div><div><div></div><div>Permian</div></div><div><div>SGe</div><div>Crystalline basement of the Black Forest Massif</div></div></div> <div>Hegau-Bodensee Graben</div> | | AUTOCHTHONOUS NORTH ALPINE FORELAND | |

Sedimentary cover (Mesozoic)

Crystalline basement

Maggia [Ma] and Sambuco [Sb] nappes

Isorno [Is], Orselina-Bellinzona [OB], Bosco [Bo] and Bombogno [Bb] zones

Ad

Adula Nappe

Gf

Gruf Complex

Piz Terri–Lunschania [PL] and Soja [So] nappes, San Giorgio Slice [SG]

Sedimentary cover (Mesozoic)

Crystalline basement

Leventina-Lucomagno [LL], Simano [Si] and Cima Lunga [CL] nappes