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The Carpatho-Balkanides of south-eastern Europe is a double 180° curved orogenic system. It is comprised of a foreland-convex orocline, situated in the north and east and a backarc-convex orocline situated in the south and west. The southern orocline of the Carpatho-Balkanides orogen formed during the Cretaceous closure of the Alpine Tethys Ocean and collision of the Dacia mega-unit with the Moesian Platform. Following the main orogen-building processes, the Carpathians subduction and Miocene slab retreat in the West and East Carpathians have driven the formation of the backarc-convex oroclinal bending in the south and west. The orocline formed during clockwise rotation of the Dacia mega-unit and coeval docking against the Moesian indenter. This oroclinal bending was associated with a Paleocene-Eocene orogen-parallel extension that exhumed the Danubian nappes of the South Carpathians and with a large late Oligocene – middle Miocene Circum-Moesian fault system that affected the orogenic system surrounding the Moesian Platform along its southern, western and northern margins. This fault system is composed of various segments that have different and contrasting types of kinematics, which often formed coevally, indicating a large degree of strain partitioning during oroclinal bending. It includes the curved Cerna and Timok faults that cumulate up to 100 km of dextral offset, the lower offset Sokobanja-Zvonce and Rtanj-Pirot dextral strike-slip faults, associated with orogen parallel extension that controls numerous intra-montane basins and thrusting of the western Balkans units over the Moesian Platform. We have performed a field structural study in order to understand the mechanisms of deformation transfer and strain partitioning around the Moesian indenter during oroclinal bending by focusing on kinematics and geometry of large-scale faults within the Circum-Moesian fault system.

Our structural analysis shows that the major strike-slip faults are composed of multi-strand geometries associated with significant strain partitioning within tens to hundreds of metres wide deformation zones. Kinematics of the Circum-Moesian fault system changes from transtensional in the north, where the formation of numerous basins is controlled by the Cerna or Timok faults, to strike-slip and transpression in the south, where transcurrent offsets are gradually transferred to thrusting in the Balkanides. The characteristic feature of the whole system is splaying of major faults to facilitate movements around the Moesian indenter. Splaying towards the east connects the Circum-Moesian fault system with deformation observed in the Getic Depression in front of

the South Carpathians, while in the south-west the Sokobanja-Zvonce and Rtanj-Pirot faults splay off the Timok Fault. These two faults are connected by coeval E-W oriented normal faults that control several intra-montane basins and accommodate orogen-parallel extension. We infer that all these deformations are driven by the roll-back of the Carpathians slab that exerts a northward pull on the upper Dacia plate in the Serbian Carpathians. However, the variability in deformation styles is controlled by geometry of the Moesian indenter and the distance to Moesia, as the rotation and northward displacements increase gradually to the north and west.