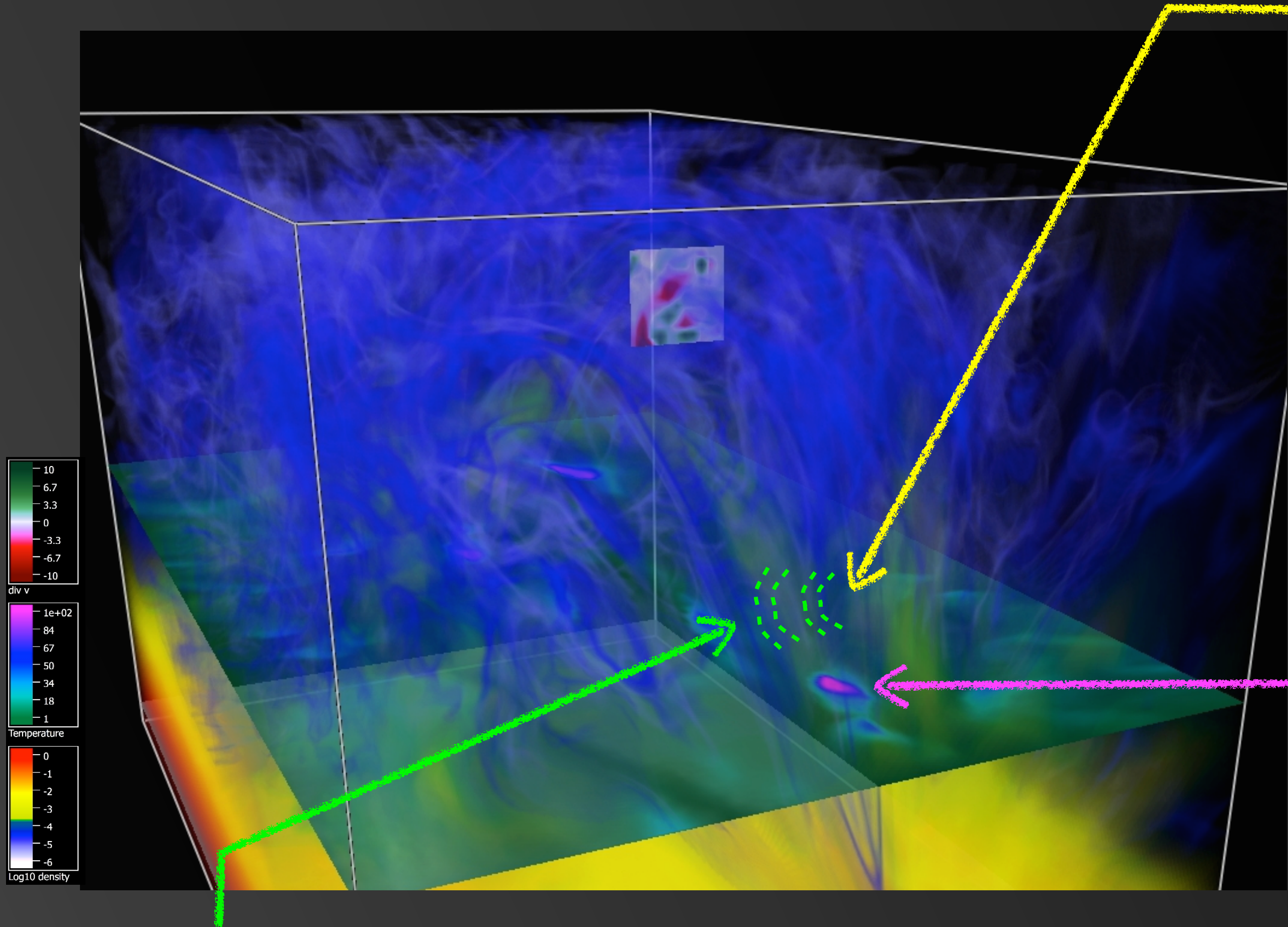
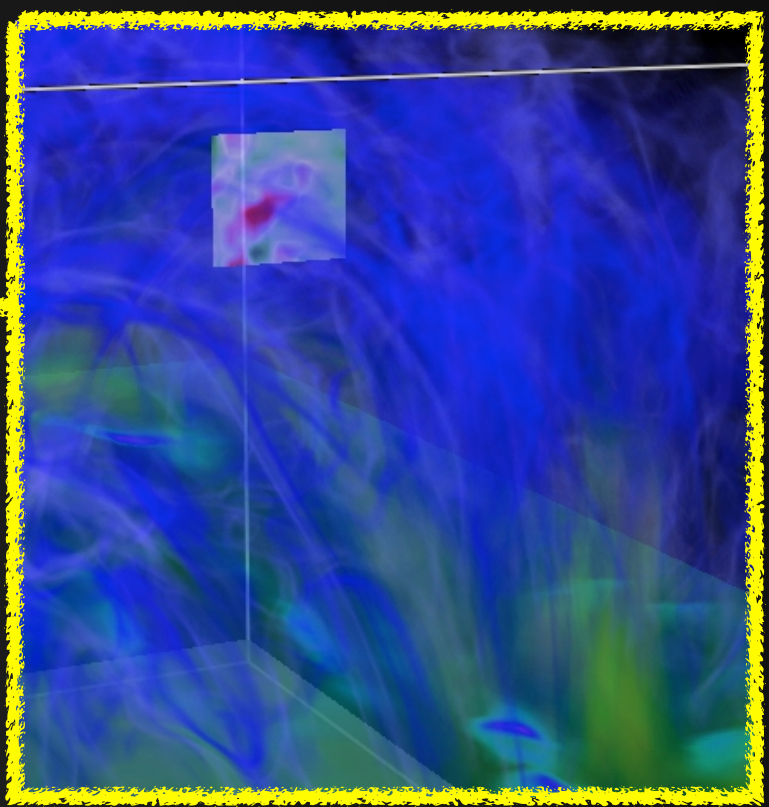


Overview of DFAH model for solar atmospheric heating

*DFAH... Dynamic Formation & Associated Heating of magnetic loop

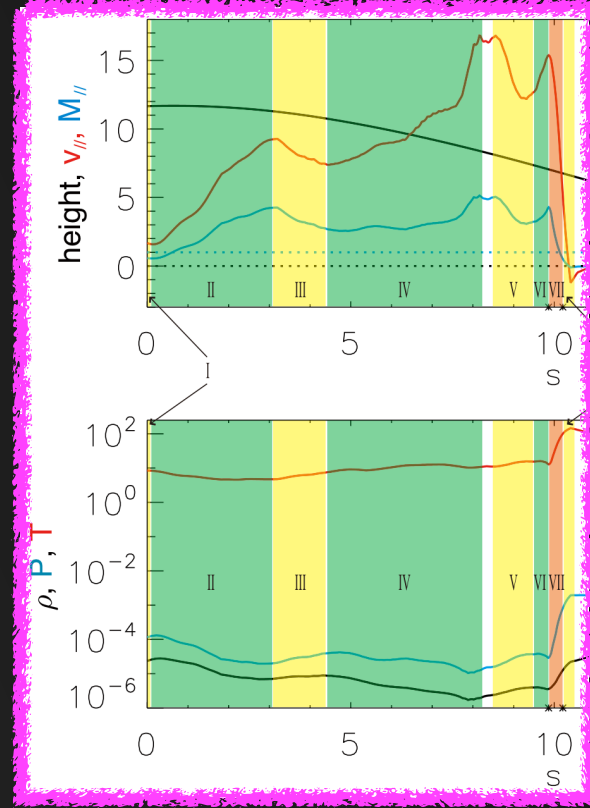
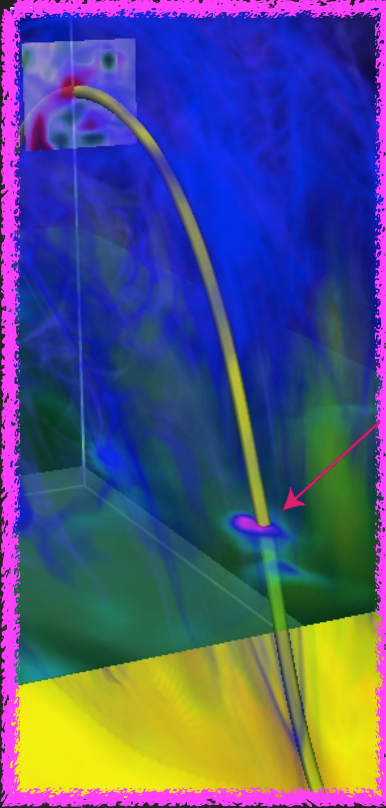
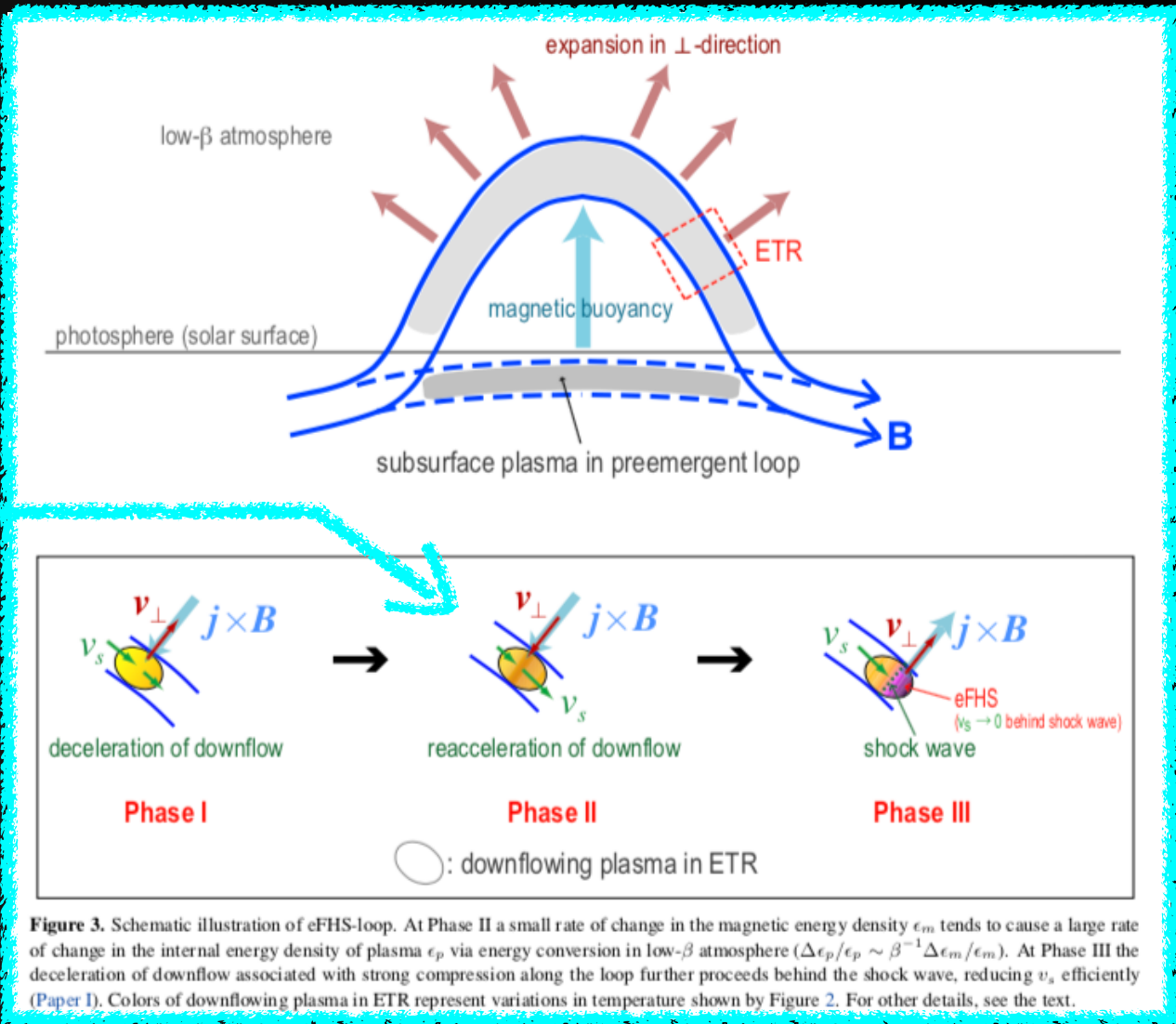


The dynamic interaction (DI) also causes magnetic piston-driven shock waves, and a chromospheric plasma may be heated by a single event of DI to have transition region temperature.



When adjacent emerging loops locally have different thermal and dynamic properties, a significant discrepancy between their translational motions driven by means of Lorentz force may arise, leading to dynamic interaction between the loops.

The dynamic interaction causes the magnetic compression that locally enhances the gas pressure, which reaccelerates a decelerated downflow along the loop.



The reaccelerated supersonic downflow generates the effective footpoint heating source (eFHS) when the kinetic energy of the flow is completely thermalized via formation of a standing shock wave behind which further compression proceeds to stop the flow.