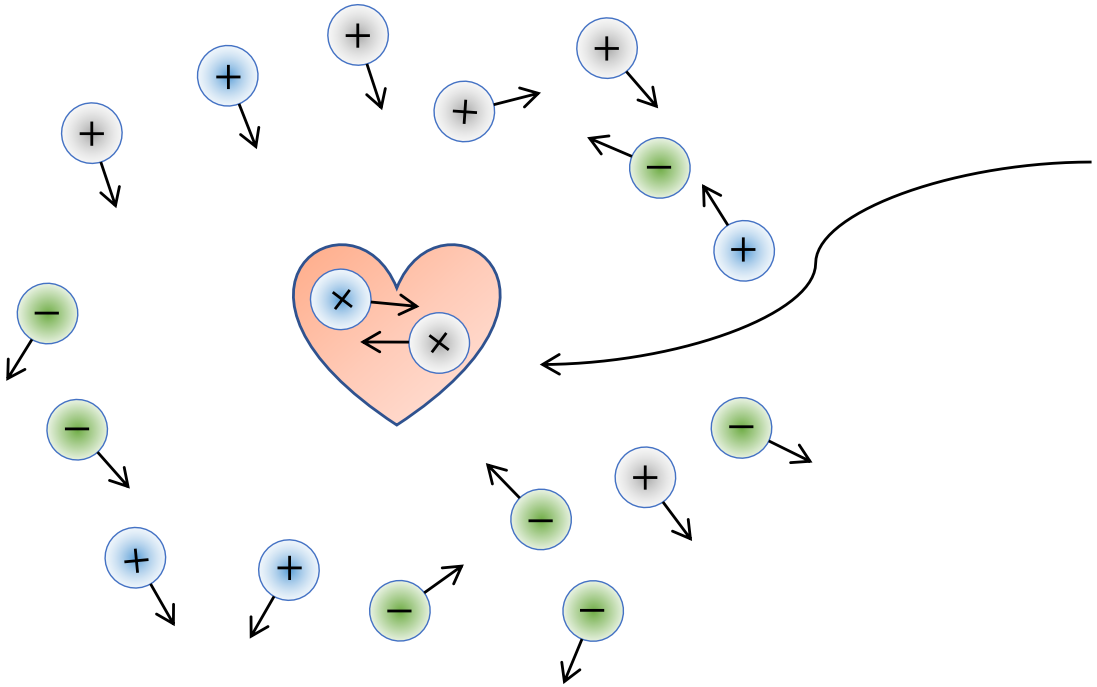
Transport in non-ideal, dense plasmas:



Ideal plasma: as two particle collide, they do so as if others do not exist

When the plasma becomes dense one can no longer distinguish the binary acts of collisions; a new approach need to be developed for understanding the micro-physics. This is the case in the warm-dense-matter regimes relevant to many astrophysical and laboratory plasmas. Of particular interest is the diffusion and thermal conduction. This project will aim at the very basic plasma physics; new many-body kinetic methods will be utilized to gain an insight into how the non-ideal plasma transport is different from the conventional, ideal case.