



Fascinating objects in the universe are jets, that can be observed in astronomy. It is not known today how these jets are powered.

With the new theory this can be explained.

The basic principle is the same as with the pulsars.

A prerequisite is always that two electrically differently charged bodies or body parts are revolving around an axis. Due to the theorem that the total charge of a closed area does not change, one can assume for a first consideration that the revolving charges are equal in the amount but of opposite polarity.

The process is similar to the acceleration process of pulsars with the charges sitting on the equator, but they can be much more powerful, as the size and mass of the revolving objects can be much higher than with pulsars. It could be even possible that there are two black holes circling around each other.

Electric negative charged particles will be accelerated in one direction of the turn axis whereas positively charged particles will be accelerated into the other direction of the turn axis. Due to the fact, that the masses of the revolving objects can be very high and with it the charges also there is the possibility that not only electrons and protons can leave the system, but also heavier ions positively or negatively charged can be accelerated to leave the system, to arrive at speeds greater than the escape velocity of the binary system.

The emission of electromagnetic waves of course is mainly caused by electrons as their charge to mass ratio is highest, and with that their acceleration is highest and they will reach the highest speeds. If now the turn axis is directed to earth with accelerated electrons in our direction then we can receive the electromagnetic waves created by the accelerated electrons with an immense blue shift. Here the same effect for the polarization angle of the generated waves can be expected as with the pulsars. During the phase of acceleration the involved magnetic field dictates the polarization angle of the created waves. When the electrons reach the point, that gravity forces become stronger than the forces from the polarizing (accelerating) forces, then there is no direct influence to the polarization angle. Though the electrons are accelerated towards the gravity center of the binary system, the waves are still travelling away from the system, as the speed of the electrons can be much higher than the speed of light.

A further result is, that the electrons will cause the highest repulsion, the highest moment. With that the whole system has a rocket propulsion continuously accelerating the whole system for the whole life time that can be billions of years.

The charge difference between a positively charged center and the negatively charged surrounding (including the surrounding stars) acts in the same way as gravity. Both have the same characteristic that the forces depend on the square of the reciprocal distance ( $1/r^2$ ). A big difference of course is in the amount of charges, as they do not distribute in the same manner as the masses of the stars.

These charge distributions in the universe can now explain what today is believed to be caused by dark matter and dark energy.

One example is the rotation of the spiral arms in our Galaxy. The outer parts are rotating faster than it can be explained by gravity only. With the assumption that the center of the Galaxy is positively charged and the outer spiral arm parts are more negatively charged, it is possible to calculate the charge differences to explain the deviation from pure gravity only. For the total amount of charges a first assumption can be made, that the total amount of charges is zero, but it might be possible that some electrons got such a high speed, that they left the gravity field of the Galaxy.