Confirmation of the proposal of five sets of binary of super massive black holes in the central region of our Galaxy

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Through out the current studies of the present research of the observation of the decameter radio waves from the center part of our Galaxy, we have proposed the existence of the five sets of binaries of super massive black holes which show periods of orbital motions, 2300 sec, 1200 sec, 810sec, 528sec, 450sec and 410sec respectively for Gaa-Gab system, Gac-Gae system, Gad-Gaf system, Gag-Gah system, and Gai-Gaj system. The element BH' s show the spin periods as 171.6 sec, 119.6 sec, 100.8 sec 72.4 sec, 62.8 sec, 54.0 sec, 46.0 sec 44.,0 sec, 26.0 sec and 23.6 sec , respectively for Gaa, Gab, Gac, Gad, Gae, Gaf, Gag, Gah, Gai, and Gaj. To deduce these periods two steps of data analyses have been employed. The first is application of FFT method to find coarse periods of pulses and orbital motions considering the Doppler effects. The second is the application of the box-car methods to detect the pulse forms and precise spin periods from which we can estimate the size and mass of the objects based on the theory of the Ker black hole ; spin periods of 1 sec roughly corresponds to .5000 solar mass.
The present studies are purposed to make rigorous confirmation of the approach of the present research work by giving proof for the following three subjects of questions.
Those are 1) to confirm the significance of the side bands of spectra as signature of the orbital motion of the black hole binary, 2) to find one to one correspondence between appearance of the Galaxy center and occurrence of FFT codes that verify the existence of BH binaries, and 3) to find identity between FFT results of observations and results of FFT of the simulation model that is constructed being based on observation periods.
The results of the works for subject 1),have indicated that there is clear difference between the observed FFT results which are characterized by many series of sidebands and the random array of noise spectra. The results of the works for subject 2), indicated that the FFT codes from the observed data appear even in the periods when the center of Galaxy center is not observable. For this confusing situation, however, the occurrence of the mirage effects due to earth surface and ionosphere reflections of the decameter radio waves is verified. By the simulation work of the subject 3) it is confirmed that FFT results for the constructed model of the 5 BH binary systems with deduced periods show good coincidence with the results of FFT for the observed data. We can, therefore, conclude that our approach to propose the BH binary systems in the center part of our Galaxy is not erroneous

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