

### **The synchronization of chaos with narrow-band noise**

Dr Vadim Anishchenko, Anna Zakharova (PhD student) and Tatyana Vadivasova  
Saratov State University, Physical faculty, Chair of Radiophysics and Nonlinear Dynamics,  
Astrakhanskaya str. 83, 410012, Saratov, Russia  
zakharova-as@mail.ru

We study the influence of colored noise on the dynamics of chaotic self-sustained oscillator. It is shown that at the narrow enough spectrum of external action the phenomenon of effective synchronization of chaos is observed. We obtain the region of synchronization. The effect of synchronization is confronted for two types of noise signals with similar spectra but distinct probability distributions. The effect of chaos synchronization is compared with the synchronization of quasi-harmonic oscillations by narrow-band noise.