

**Peculiarities of the Besselian behavior of the Buzdin, Shapiro and Chimera steps in the  $\varphi_0$  Josephson junction**

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The peculiarities of the Bessel behaviour of the Buzdin, Shapiro and Chimera steps at the  $\varphi_0$  Josephson junction are investigated. Using a theoretical model, we analysed and presented detailed results demonstrating the characteristic responses of each step to varying radiation amplitudes. Understanding these phenomena can provide valuable insights for applications in superconducting qubits, SQUIDs, and standard volt, enhancing the precision and stability of these technologies.

**References**

- [1] Yu. M. Shukrinov, E. Kovalenko, J. Tekic, K. Kulikov, M. Nashaat, *Buzdin, Shapiro and Chimera Steps in  $\varphi_0$  Josephson Junctions*. Physical Review B, **109**, 024511 (2024)