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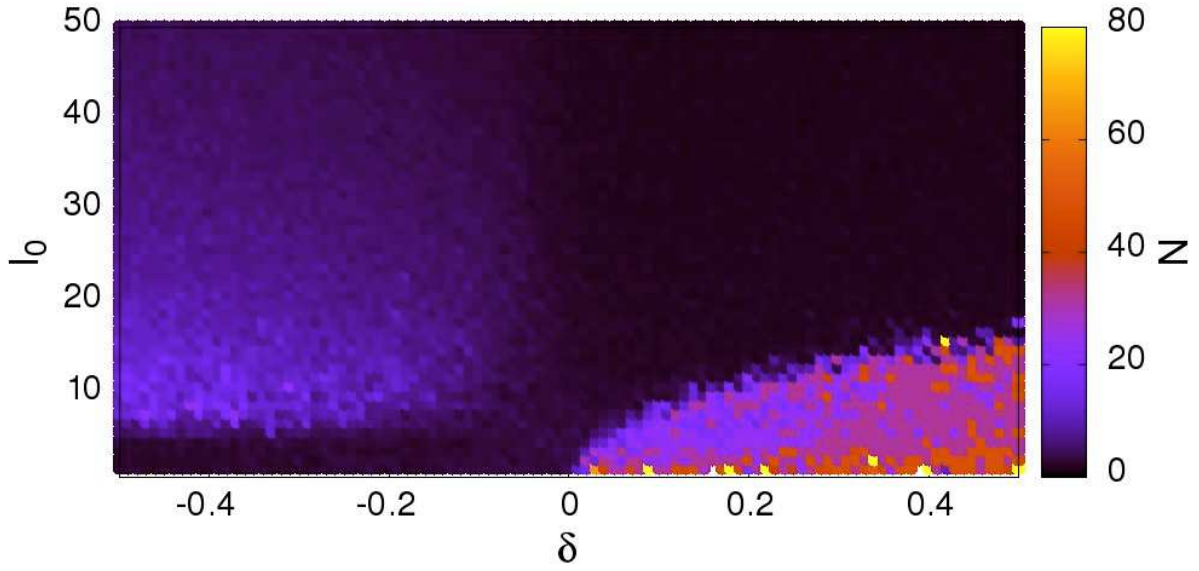
I visited Sofia under the mobility scheme of the Erasmus+ program and stayed there from 18 to 23 June 2017.
During my stay I was introduced to the operational procedures for parallel calculations in the Nestum HPC centre in Sofia. I tested the existing code for studying surface patterning on vicinal crystal surfaces to perform parallel computations. First calculations were done and more are on the way. They resulted in my deeper understanding of system parameters oriented towards identification of parameters regions where step bunching is most pronounced.
Preliminary discussions about joint numerical and experimental investigation of step bunching emergence under various particle flux directions were also conducted. My calculations strengthened the confidence in the preliminary results obtained by the Sofia group and helped to negotiate successfully the formation of a new virtual research team with an experimental group in Dublin.

The exemplary results obtained during my training are shown below. The first joint manuscript is now under preparation.



Rysunek 1 We investigated numerical model of 1D stepped crystal surface under external current. We showed that step bunching emerges for the two directions of the current δ. There is a narrow range of the initial terrace width l0 (miscuts), where the instability is observed for step up (δ<0) and step down (δ>0) directions of the drift.