



 **Victor LUTFALLA**

From France to Finland 

Project: **Low complexity Geometric tilings**

Finnish Institution: **Turku University**

French Institution: **Normandie Université – Université de Caen**

Dates of mobility: **04/06/2023 to 16/06/2023**

Program: **Maupertuis programme**

PRESENTATION

After a bachelor's degree and a master's degree in Theoretical Computer Science from [ENS de Lyon](#) (Lyon, France), Victor Lutfalla prepared his PhD in Theoretical Computer Science at [University Paris XIII - University Sorbonne Paris Nord](#) (Villetaneuse, France). He defended his PhD thesis on July 2021. After obtaining his PhD, he held a one year ATER position at [University Aix-Marseille](#) (Marseille, France) and now holds a one year postdoc position at [Normandy University](#) (Caen, France) funded by ANR C_SyDySi.

ACTIVITIES IN FINLAND

During his stay, Victor Lutfalla contributed to different seminar and group works.

These are the seminars topics that have been presented:

- Domino-rhombus, Topology of geometric tilings, Percolation on quasicrystals by Victor Lutfalla;
- Turing degrees in tilings: cones and isolated points by Pascal Vanier;
- Diddy: a Python toolbox for studying subshifts by Ilkka Törma and Ville Salo;
- Algebraic notions on Delone sets I and II by Pyry Herva;
- Substitutions and local rules on self-similar structures and Fundamental group of tilings by Léo Paviet Salomon.

The group works studied various topics, such as: Geometric domino and graph quasi-isometries, Cellular automata on quasicrystal tilings, Delone sets of cut-and-project tilings, Snowflake tilings (see Figure 1), Substitutions on groups, recursively enumerable Fundamental groups, Entropies of surfaces, and Aperiodic domino.

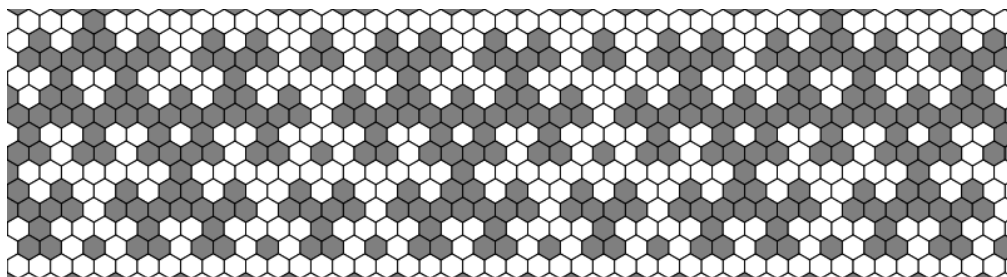


Figure 1: a Snowflake tiling