



Bundesanstalt für
Materialforschung
und -prüfung

Bundesanstalt für Materialforschung und -prüfung (BAM) · 12200 Berlin, Germany

**Dr.-Ing.
Bernard Fedelich**

Unter den Eichen 87
12205 Berlin
GERMANY

P: +49 30 8104-3104
Bernard.Fedelich@bam.de

Your reference:
Your message of:

Our reference:
Our message of:

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To whom it may concern,

Mr. Saidamir Bobojonov, a student of the Khujand State University in Tajikistan, has worked as a trainee of the IASTE in the Division: 5.5 "Materials Modelling" of the Federal Institute for Materials Research and Testing (BAM, Berlin) from 05.06.2024 to 29.08.2024.

During his Internship at BAM, Mr. Bobojonov worked on realizing a workflow for generating representative volume elements (RVE) to describe the microstructure of a metallic polycrystal for subsequent Finite Element (FE) Analysis. These RVEs can be used to simulate the mechanical response of the material. The workflow has been implemented in Python and creates all the files for the definition of RVEs (node definition, element definition...) needed by the commercial FE-Program ANSYS. The Microstructure Model, which is generated using the program Neper, serves as the input for this workflow. Mr. Bobojonov could apply and successfully test the implemented workflow to generate RVEs with different grain morphologies (Voronoi and Voxel) and sizes.

We would like to thank Mr. Bobojonov for his cooperation and wish him every success in his future career.

Sincerely yours,

Dr.-Ing. Bernard Fedelich