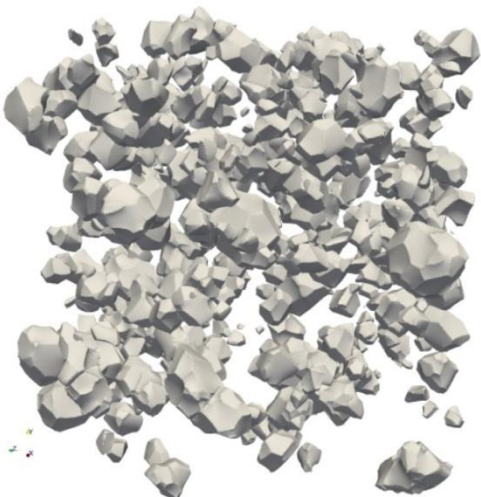
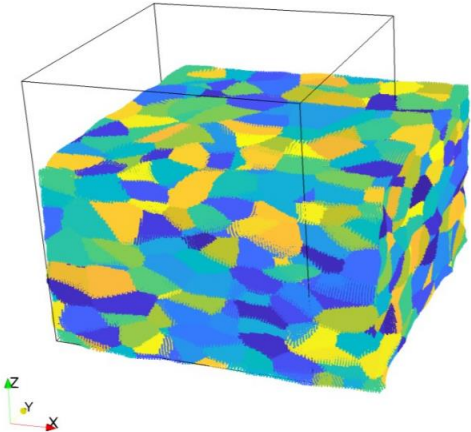


Dr.-Ing. Markus Kühbach

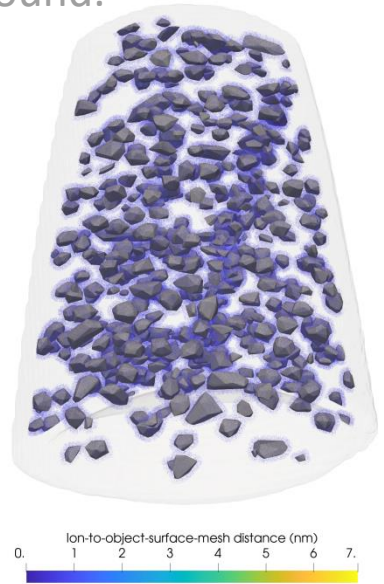
A metallurgist with a C/C++/MPI/OpenMP HPC background.



RX & GG, Gottstein



Crystal plasticity, Roters



Atom probe, Gault/Raabe

```
object ▶ section_process ▶ metadata ▶ timestamps ▶
└─ object {1}
  └─ section_process (2)
    └─ metadata (5)
      └─ specimen (6)
        └─ tool (4)
          └─ tool_name (6)
            └─ solution_agent (6)
              └─ cooling_agent (6)
                └─ cloth (6)
                  └─ environment (6)
                    └─ operator (6)
                      └─ timestamps (2)
                        └─ data (6)
                          └─ rotational_speed (6)
                            └─ power (6)
                              └─ applied_force (6)
                                └─ solution_flux (6)
                                  source: machine
                                  descr: flux of polishing agent as a function of time
                                  shape: Hdf5UIDSolutionFluxProfile
                                  dtype: Hdf5UIDSolutionFluxProfile
                                  unit: Hdf5UIDSolutionFluxProfile
                                  value: Hdf5UIDSolutionFluxProfile
                                └─ cooling_flux (6)
                                  └─ temperature (6)
                                    source: human
                                    descr: air temperature as a function of time
                                    shape [1]
                                    dtype: np.float64
                                    unit [1]
                                    value: 298
```

FAIRmat

> Local domain expert for electron microscopy and atom probe microscopy



NeXus application definitions and file format conversion

Looking forward to exchange with vendors how their data representations can be mapped on schemata and formats which are proposed by the scientific community.



NeXus-FAIRmat
 Proposal of NeXus expansion for FAIRmat data.
[Watch](#)

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 - Ellipsometry Structure
 - Electron Microscopy Structure
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User Manual and Reference Documentation

Welcome to the user manual of the NeXus for FAIRmat project.
<https://www.nexusformat.org/>

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- **Ellipsometry Structure**
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 - New Application Definitions
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 - Introduction
 - New Application Definitions
 - New Base Classes

NionSwift Json Flat Path Keyword	Short Nxem_nion.nxd.xml Flat Path	add ENTRY[Unit	Take?	Fully resolved path defi
metadata/instrument/ImageScanned/C12 b	em_lab/CORRECTORCS[correctors]/c_1_2_b	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C21 a	em_lab/CORRECTORCS[correctors]/c_2_1_a	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C21 b	em_lab/CORRECTORCS[correctors]/c_2_1_b	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C23 a	em_lab/CORRECTORCS[correctors]/c_2_3_a	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C23 b	em_lab/CORRECTORCS[correctors]/c_2_3_b	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C30	em_lab/CORRECTORCS[correctors]/c_3_0	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C32 a	em_lab/CORRECTORCS[correctors]/c_3_2_a	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C32 b	em_lab/CORRECTORCS[correctors]/c_3_2_b	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C34 a	em_lab/CORRECTORCS[correctors]/c_3_4_a	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C34 b	em_lab/CORRECTORCS[correctors]/c_3_4_b	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C50	em_lab/CORRECTORCS[correctors]/c_5_0	NX_ANY	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/C1 ConstW	None	A ??		
metadata/instrument/ImageScanned/C2 ConstW	None	A ??		
metadata/instrument/ImageScanned/C3 ConstW	None	A ??		
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metadata/instrument/ImageScanned/SuperFEG.^EmissionCurrent	None	NX_UNITLESS		
metadata/instrument/ImageScanned/G_2Db	None	NX_UNITLESS		
metadata/instrument/ImageScanned/LastTuneCurrent	None	NX_UNITLESS		
metadata/instrument/ImageScanned/probe_ha	em_lab/probe/semi_convergence_angle	rad	1	"metadata/instrument/ImageSc
metadata/instrument/ImageScanned/HAADF_Inner_ha	em_lab/hadf/haadf_inner_half_angle	rad	1	"metadata/instrument/ImageSc
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metadata/instrument/ImageScanned/GeometricProbeSize	em_lab/probe/extent	m	1	"metadata/instrument/ImageSc
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metadata/scan/scan_id	None	NX_UNITLESS		
metadata/scan/center_x_nm	None	NX_UNITLESS		

> Writing file format converters, drafting application definitions