**Raw data (.ibw file)**

**Data structure**

**Header (type: dictionary)**

Defines a structure for the meta data.

Functions:

AddHeaderEntries(entries)

**Wave (dependencies: Header)**

Functions:
- getParam(key)
- getData(key)

**Data structure for AFM scans**

**AFMScan (dependencies: Wave)**

Functions:
- PlaneSubtraction(data, direction, xdim, ydim)
- Display(data, title, zlabel, cmap, save)
- ProjectionOnHeight(data, cmap, zlabel, theta, phi, sub_plane, trace, save)

**Structure for dynamic mechanical viscoelastic maps**

**DynamicMechanicAFMScan (dependencies: DynamicYoung, AFMScan)**

Functions:
- load(path)
- tau(model, blurs, blurl)
- True_tau(model, model, blurs, blurl, method)
- km(model, blurs, blurl)
- True_km(model, model, blurs, blurl, method)
- kinf(model, blurs, blurl)
- True_kinf(model, model, blurs, blurl, method)

**Structure for dynamic mechanics**

**DynamicViscoelastic (type: Object)**

Functions:
- conservative()
- dissipative()

**DynamicYoung (dependencies: DynamicViscoelastic)**

Functions:
- Storage(model, $F_0$, $\alpha$, $\nu$, R)
- MyStorage(model, $F_0$, $\alpha$, $\nu$, R, $E_0$)
- Loss(model, $F_0$, $\alpha$, $\nu$, R, $\omega_0$)
- MyLoss(model, $F_0$, $\alpha$, $\nu$, R, $E_0$, $\omega_0$)
- Delta(model, $F_0$, $\alpha$, $\nu$, R)
- ComplexModulus(model, $F_0$, $\alpha$, $\nu$, R, $E_0$)

**Structure for force volume measurements**

**FDIndices (type: Object)**

Functions:

None

**FDData (dependencies: FDIndices)**

Functions:
- Trace()
- Retrace()
- Dwell()
- Data()

**Structure for force curves**

**ForceCurve (dependencies: Wave, StaticYoung, FDData)**

Functions:
- load(path)
- correct(stds, method, fitrange, cix, $F_{min}$, $F_{max}$)
- difference(method)
- surface_idx(method)
- ContactPhase(dist)
- ContactAmp(dist, unit)
- plot(XQantity, save)

**Structure for static mechanics**

**ContactPoint (type: Object)**

Functions:
- getCP(ind, f, method, model, std)

**StaticYoung (dependencies: ContactPoint)**

Functions:
- Young(model, $\delta$, F, $p_0$, $F_{min}$, $F_{max}$, $\delta_{min}$, $\delta_{max}$, R, $\alpha$, $\beta$, constant)