

TIC Community Talks

Wednesday, March 4th, 16:00

The seminar will be held as in-person meeting
Location: Auditorium O2.211, sitem-insel, Freiburgstrasse 3, Bern
Broadcast on zoom: <https://unibe-ch.zoom.us/j/61079804322>

Resolution-adaptive networks for uniform performance across heterogeneous medical image cohorts

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In the setting of clinical imaging, differences in between vendors, hospitals and sequences can yield highly inhomogeneous imaging data. In MRI imaging in particular, voxel dimension, slice spacing and acquisition plane can vary dramatically. The usual strategy to deal with heterogeneity of resolution is harmonization by resampling to a common spatial resolution. This can lead to loss of fidelity arising from interpolation artifacts out-of-plane and downsampling in-plane. We propose a network architecture designed to be able to learn directly from spatially heterogeneous data, without resampling: a segmentation network based on a geometric learning framework that leverages a spherical harmonic, rather than voxel-grid, parameterization of convolutional kernels.

To stay up to date and find a program of our seminars:
<https://www.tic-sitem.ch/tic-seminars>

