Geometry for Anatomy workshop schedule

Check-in: Front Desk - Professional Development Centre
Meals: Sally Borden Building
Coffee breaks: Corbett Hall
Meeting rooms: Max Bell 159
Notes:
- Max Bell Building accessible by walkway on 2nd floor of Corbett Hall.
  LCD projector, overhead projectors and blackboards are available for presentations.
- Remember to scan your meal card at the host/hostess station in the dining room for each meal
- Meeting space designated for BIRS is the lower level of Max Bell, Rooms 155– 159

Sunday Aug. 28		
16:00	-	Check-in
16:00	-	Informal gathering
17:30	19:30	Dinner
Monday Aug. 29		
07:00	08:45	Breakfast
08:45	09:00	Welcome and introduction by BIRS station manager
09:00	09:10	Welcome by organizers, schedule overview, …
09:10	**10:25**	**Talks M1**
09:10	09:35	**Kim (& Pierrynowski):** *Frenet-Serret and the Estimation of Curvature and Torsion*
09:35	10:00	**Huckemann:** *On the statistical modelling of quasi periodic motion trajectories occuring in the biomechanics of the knee joint*
10:00	10:25	**Dryden:** *Curve modeling in shape spaces*
10:25	10:50	Coffee break
10:50	**11:40**	**Talks M2**
10:50	11:15	**Yezzi:** *Incorporating Global information into Active Contours and Active Surfaces*
11:15	11:40	**Kazhdan:** *Efficient Multigrid Solvers for Poisson Systems on Meshes*
11:40	13:00	Lunch
13:00	14:00	Guided tour of the Banff Centre
14:50	-	Free afternoon / group hikes
17:30	19:30	Dinner
Tuesday Aug. 30		
07:00	09:00	Breakfast
09:00	09:10	About topics for extended discussion, other announcements…
09:10	**10:25**	**Talks T1** - *video-recorded* 📹
09:10	09:35	**Kindlmann:** *Particle systems for visualizing the connection between math and anatomy*
09:35	10:00	**Giblin:** *Views of illuminated surfaces*
10:00	10:25	**Pizer:** *3D multi-source visualization for external beam radiotherapy*
10:25	10:40	Coffee break
10:40	**11:30**	**Talks T2**
10:40	11:05	**Sheffer:** *Space-Time Reconstruction - Understanding Motion*
11:05	11:30	**Tagliasacchi:** *Volume-Aware Surface Evolution for Surface Reconstruction from Incomplete Point Clouds*
11:30	13:00	Lunch
13:00	**15:45**	**Talks T3**
13:00	13:25	**Taylor:** *Building Anatomical Models Automatically – Theory to Practice*
13:25	13:50	**Srivastava:** *Role of Quotient Spaces in Registration, Comparison and Statistics of Shapes and Images*
13:50	15:20	**Extended discussion**
15:20	15:45	**Whitaker:** *Shape-Based Analysis of Large Image Ensembles*
15:45	16:00	Coffee break
16:00	**17:15**	**Talks T4**
16:00	16:25	**Gröller:** *Comprehensive Visualization of Cardiac MRI Data*
16:25	16:50	**Siddiqi:** *Heart Wall Myofibers Bundle into a Generalized Helicoid*
16:50	17:15	**Booth:** *Spatio-temporal Analysis of Connectivity Patterns for White Matter Injury Detection in the Preterm Infant Brain*
17:15	19:30	Dinner

Wednesday Aug. 31		
07:00	08:30	Breakfast
08:30	09:20	**Extended discussion**
09:20	**10:35**	**Talks W1**
09:20	09:45	**Grady:** *Shape Characterization with Network Analysis*
09:45	10:10	**Zhang:** *Symmetry analysis for shape processing*
10:10	10:35	**van-Kaick:** *Pairwise Shape Descriptors for Partial Matching*
10:35	10:50	Coffee break
10:50	**11:40**	**Talks W2**
10:50	11:15	**Zhou:** *Whole Body Image Parsing*
11:15	11:40	**Damon:** *Analyzing Configurations of Objects in Images via Medial/Skeletal Linking Structures*
11:40	13:00	Lunch
13:00	**14:40**	**Talks W3 -** *video-recorded* 📹
13:00	13:25	**Jacob (& Hallgrimsson):** *The Lindsay Project: A framework for anatomically embedded simulation for medical education*
13:25	13:50	**Jacob:** *Multi-scale, Agent-based Modeling for Human Anatomy and Physiology: Challenges and Opportunities*
13:50	14:15	**Pennec:** *Measuring and modeling the (differential) longitudinal evolution from sequences of images*
14:15	14:40	**Kurtek:** *Statistical Shape Analysis of Elastic Anatomical Surfaces*
14:40	15:00	Coffee break
15:00	**16:15**	**Talks W4**
15:00	15:25	**Pottmann:** Shape Space Exploration of Constrained Meshes
15:25	15:50	**Jung:** *Analysis of population of shapes via a backward generalization of PCA*
15:50	16:15	**Fletcher:** *Geodesic Regression on Shape Manifolds*
16:15	16:30	About topics for extended discussion
16:30	17:30	**Extended discussion**
17:30	19:30	Dinner
Thursday Sep. 1		
07:00	09:00	Breakfast
09:00	**10:15**	**Talks H1**
09:00	09:25	**Möller:** *Tuner - finding the best parameters for your algorithm*
09:25	09:50	**Saad:** *ProbExplorer: Uncertainty-guided Exploration and Editing of Probabilistic Medical Image Segmentation*
09:50	10:15	**Florack:** *Cardio & Neuro Imaging from a Mathematical Perspective*
10:15	10:30	Coffee break
10:30	**11:45**	**Talks H2**
10:30	10:55	**Hamarneh:** *The fidelity vs. optimizability trade-off in the analysis of medical images and geometry of anatomy*
10:55	11:20	**Amenta:** *Surface Mapping and Registration*
11:20	11:45	**Grimm:** *Biomedical modeling: From 3D images to computational models*
11:45	13:00	Lunch
13:00	13:40	Group photo
13:40	**14:55**	**Talks H3**
13:40	14:05	**Abugharbieh:** *Active Learning for Interactive 3D Image Segmentation*
14:05	14:30	**Deng:** *Efficient Segmentation of 3D Anatomical Structures from Biomedical Imaging*
14:30	14:55	**Andrews**: *Convex Energy Minimization Over Multi-Region, Probabilistic Segmentation Spaces*
14:55	15:10	Coffee break
15:10	**16:00**	**Talks H4**
15:10	15:35	**Marron:** *OODA of Tree-Structured Data Objects*
15:35	16:00	**Nielsen:** *Towards a theory of statistical tree-shape analysis*
16:00	16:05	Short break
16:05	**16:55**	**Talks H5**
16:05	16:30	**Sommer:** *A Multi-Scale Kernel Bundle for LDDMM*
16:30	16:55	**Joshi:** *Simple Statistics on Interesting Spaces for Developing Imaging Biomarkers Analysis*
16:55	17:00	Short break
17:00	17:10	About topics for extended discussion
17:10	18:10	**Extended discussion**
18:10	19:30	Dinner
Friday Sep. 2		
07:00	09:00	Breakfast
09:00	**10:00**	**Extended discussion**
10:00	10:15	Coffee break
10:15	10:55	**Conclusions about the different themes**
10:55	11:00	Closing and concluding remarks
11:00	12:00	Checkout
12:00	13:30	Lunch