



OTTO VON GUERICKE UNIVERSITY MAGDEBURG

Graduate School for Micro-Macro-Interactions in Structured Media and Particle Systems - GRK 1554

Speaker: Prof. Tomas

GRK 1554 Summer School 2015

08.06.2015 – 12.06.2015

Venue (except Wednesday):

Wissenschaftsforum Gendarmenmarkt
Markgrafenstraße 37
10117 Berlin

Venue Wednesday:

Weierstraß-Institut
Mohrenstr. 39
10117 Berlin

Hotel:

Motel One, Spittelmarkt
Leipziger Str. 50
10117 Berlin

Montag, 08.06.2015

07:45		Meeting Main Station Magdeburg
08:08	09:49	Train travel RE18109 Magdeburg (platform 8) – Berlin (platform 12)
10:00	10:30	Berlin Railway station – Gendarmenmarkt
10:30	11:00	Morning Coffee break

S1	Chair:	Amir Eshghinejadfard	
11:00	12:00	Prof. Sergiy Antonyuk	From micro behaviour of single particles to the description of dynamic multi-phase processes

12:00 13:00 **Lunch at Löwenbräu**

S2	Chair:	Klim Kavaliou	
13:00	14:00	Dr. Tobias Kempe	Direct numerical simulation of particle and bubble laden flows
14:00	14:20	Amir Eshghinejadfard	Flow simulations using a lattice Boltzmann method
14:20	14:40	Abbas Kamranian Marnani	Fluidization behavior of different fine to ultra-fine cohesive powders
14:40	15:00	Zinaida Todorova	Surface modification of cohesive glass particles for altering the interparticle interactions

15:00	15:30	Coffee break
15:30	16:30	Hotel Check-in
16:30	16:45	Meeting in the hotel lobby, walk to Checkpoint Charlie (Appendix B)
16:45	18:45	Checkpoint Charlie
19:00		Dinner at the greek restaurant <i>Olympisches Feuer</i>

Dienstag, 09.06.2015

S1	Chair:	Gouri Sankar Sandaka	
08:30	09:00	Klim Kavaliou	Diffusion of magnetic particles in a ferrofluid seal in the presence of magnetic and centrifugal forces
09:00	09:20	Robin Gröpler	Numerical simulation of particle size distribution in lime shaft kilns
09:20	09:40	Kristin Simon	Local Projection Stabilization for surface PDEs

09:40 10:00 **Morning Coffee break**

S2	Chair:	Pavan Penumakala	
10:00	11:00	Prof. Sashikumaar Ganesan	
11:00	11:20	Gouri Sankar Sandaka	Decomposition of lime stone
11:20	11:35	Ashok Kumar Nallathambi	Mathematical modeling of quenching and casting processes
11:35	11:45	Yuan Fand	Analysis of heat transfer during quenching of metals

11:45 12:00 **Meeting of the students / election of a new student representative**

12:00 13:30 **Lunch at Löwenbräu**

13:30 14:00 **Walk to Technik Museum (Appendix C)**

14:00 16:00 **Technik Museum**

16:00 16:30 **Walk back**

16:30 17:00 **Coffee break**

S3	Chair:	Ashok Kumar Nallathambi	
17:00	18:00	Mr. Katgermern	Modeling hard cracks in direct chill casting

19:00 **Dinner at the german restaurant *Nolle***

Mittwoch, 10.06.2015

S1	Chair:	Helal Chowdhury	
08:30	08:50	Alireza Attari Moghaddam	Determination of moisture transport coefficient from invasion percolation simulations
08:50	09:10	Reihaneh Pashminehazar	Development of 3D morphological descriptors for agglomerate with complex structure
09:10	09:30	Evgeniya Stratieva Roydeva	Experimental study of the coating process of fine dispersed particles

09:30 10:00 **Morning Coffee break**

S2	Chair:	Abdolreza Kharaghani	
10:00	11:00	Prof. Majid Hassanizadeh	Pore-scale modelling of unsaturated flow through highly swelling (water-absorbing) particles
11:00	12:00	Dr. Rachel Smith	Dr. Rachel Smith "Rate Processes in Wet Granulation"

12:00 13:00 **Lunch at Löwenbräu**

S3	Chair:	Alireza Attari Moghaddam	
13:00	14:00	Dr. Dana Zöllner	An alternative treatment for self-similar scaling: The envelope of size distributions in Ostwald ripening and grain growth

14:00 19:00 **City Tour**

19:00 **Dinner at the italian restaurant *Trattoria Ossena***

Suggestions for the later evening:

<http://www.pratergarten.de/d/biergarten.php>

<http://www.wohnzimmer-bar.de/#>

Donnerstag, 11.06.2015

S1	Chair:	Philipp Thiem	
09:30	09:50	Helal Chowdhury	Viscoplasticity of Al-rich TiAl single crystal at high temperature
09:50	10:10	Johanna Eisenträger	Modelling of heterogeneous materials with a multicontinuum approach
10:10	10:30	Oliver Junge	Investigation of the effects of uncertainties in Estimation problems in (non-linear) material models
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10:30	11:00	Morning Coffee break	
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S2	Chair:	Oliver Junge	
11:00	11:20	Marcus Aßmus	Multiscale Mechanics at Photovoltaic Modules
11:20	11:40	Philipp Thiem	Thermal sprayed coatings made of Iron Aluminide powders under thermal and mechanical loading
11:40	12:00	Janett Schmelzer	Effect of Si concentration on the properties of V-Si solid solution powders
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12:00	13:00	Lunch at Löwenbräu	
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S3	Chair:	Johanna Eisenträger	
13:00	14:00	Prof. Elisabetta Gariboldi	Combined effects of initial microstructural features and of their changes during high temperature exposure on the creep properties of some precipitation-hardened aluminium alloys
14:00	15:00	Dr. Katja Jöchen	Micromechanical description of the mechanical behavior of polycrystalline materials
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15:00	15:30	Coffee break	
15:30	16:00	Walk to Berlin Dungeon (Appendix D)	
16:00	18:30	Berlin Dungeon	
19:00		Dinner at the bavarian restaurant <i>Weihenstephaner</i>	

Freitag, 12.06.2015

S1	Chair:	Jörg Christian Reiher	
08:00	08:20	Martin Weber	Material Plasticity
08:20	08:40	Sara Bucci	Elastic and plastic simulation of honeycomb structures
08:40	09:00	Jan Kalisch	Crystallographic Texture – Performance of the Quadratic Approximation

09:00 09:30 **Morning Coffee break**

S2	Chair:	Prof. Bertram	
09:30	10:30	Prof. Arnold Krawietz	Subgrain formation during forming processes
10:30	11:30	Prof. Francesco Dell'Isola	On Gradient Material

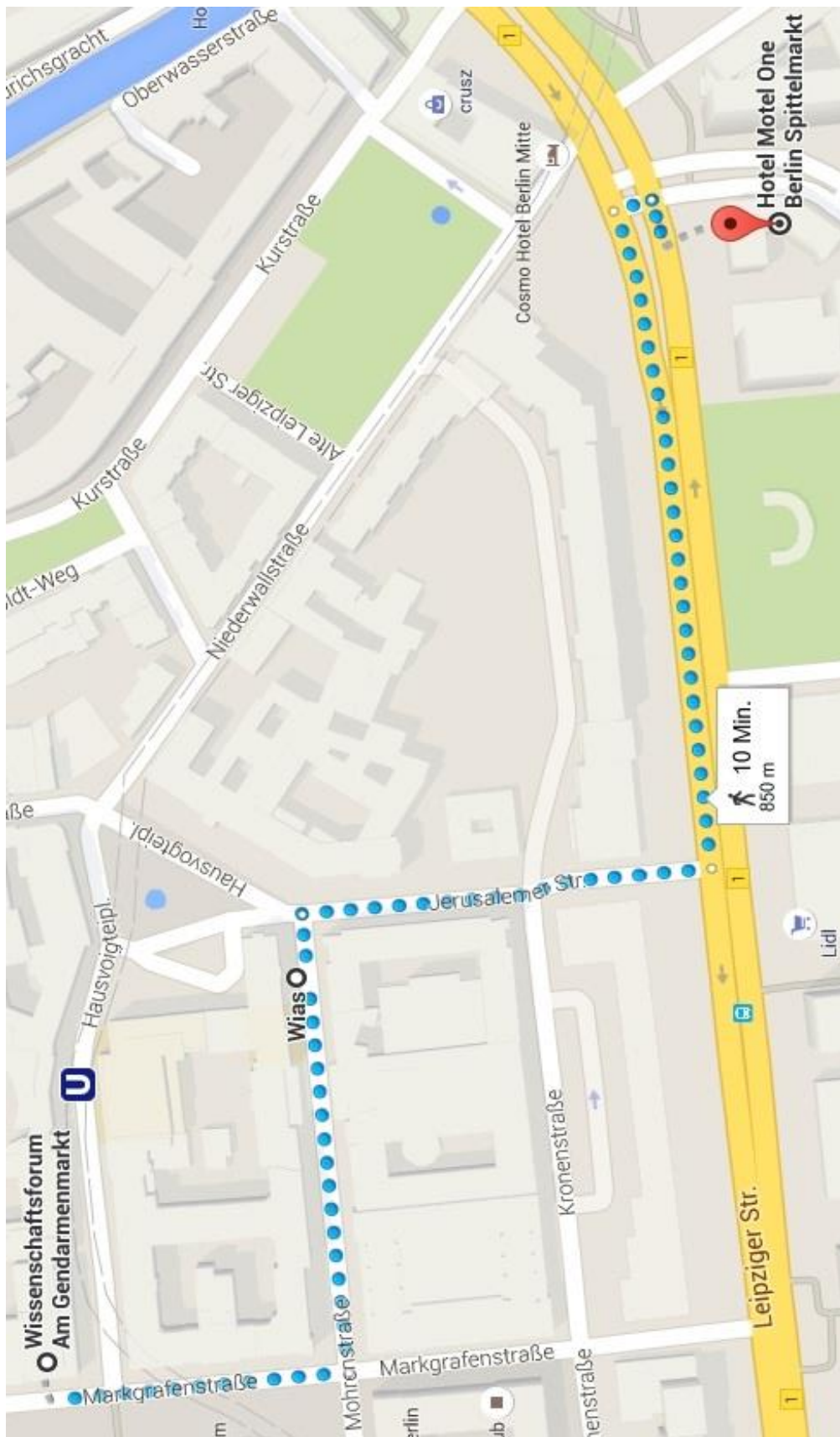
11:30 12:30 **Lunch at Löwenbräu**

S3	Chair:	Sara Bucci	
12:30	12:50	Jörg Christian Reiher	A third order elasto-plasticity framework
12:50	13:10	Esmaeil Tohidlou	Latent hardening effects on grain refinement during the ECAP process
13:10	13:30	Resam Makvandi	An Introduction into Isogeometric Analysis and its Potential in Simulating Gradient-type Problems

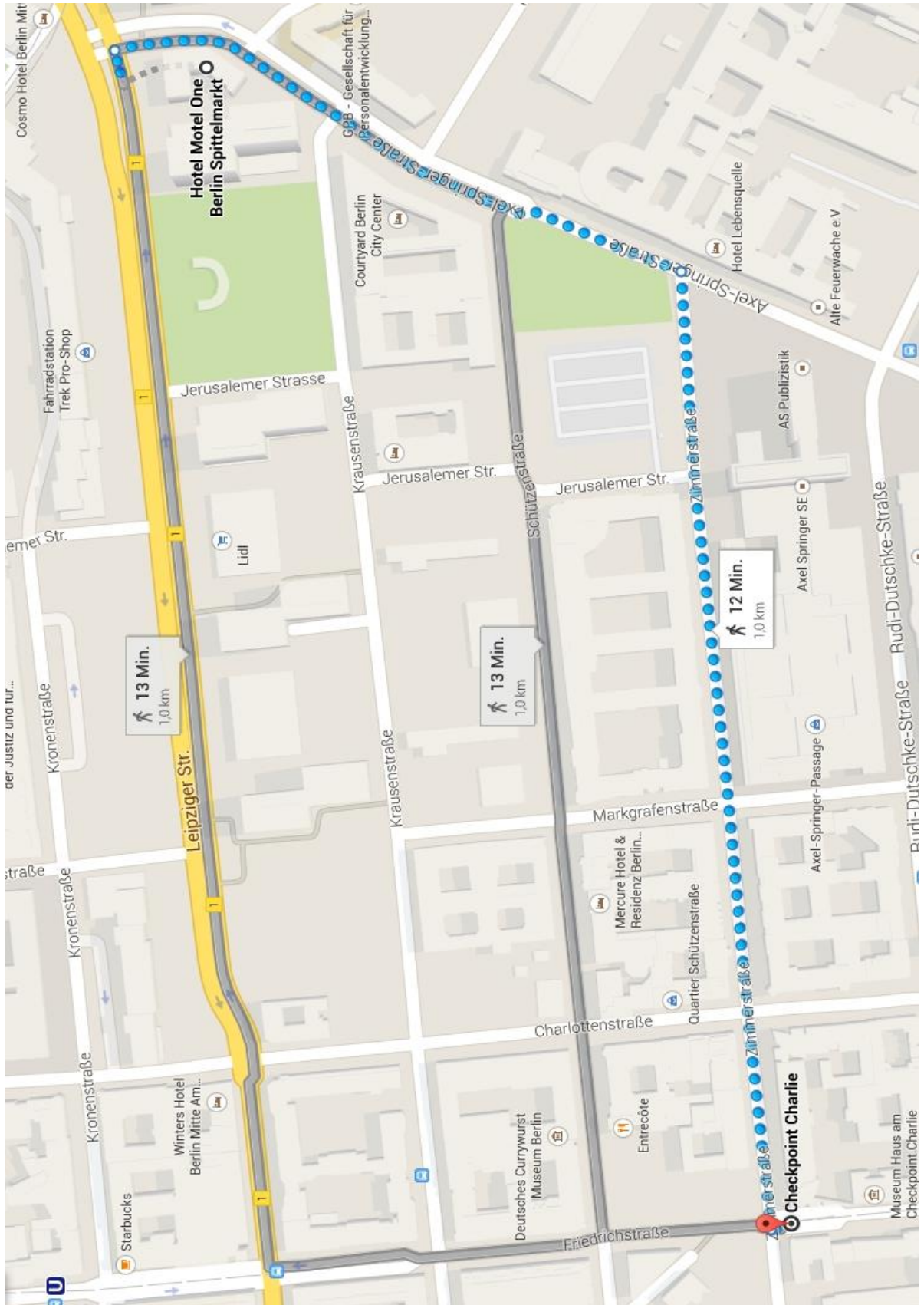
13:30 14:00 **Gendarmenmarkt - Berlin Railway station**

14:11 15:51 **Train travel RE18122 Berlin (platform 14) - Magdeburg (platform 8)**

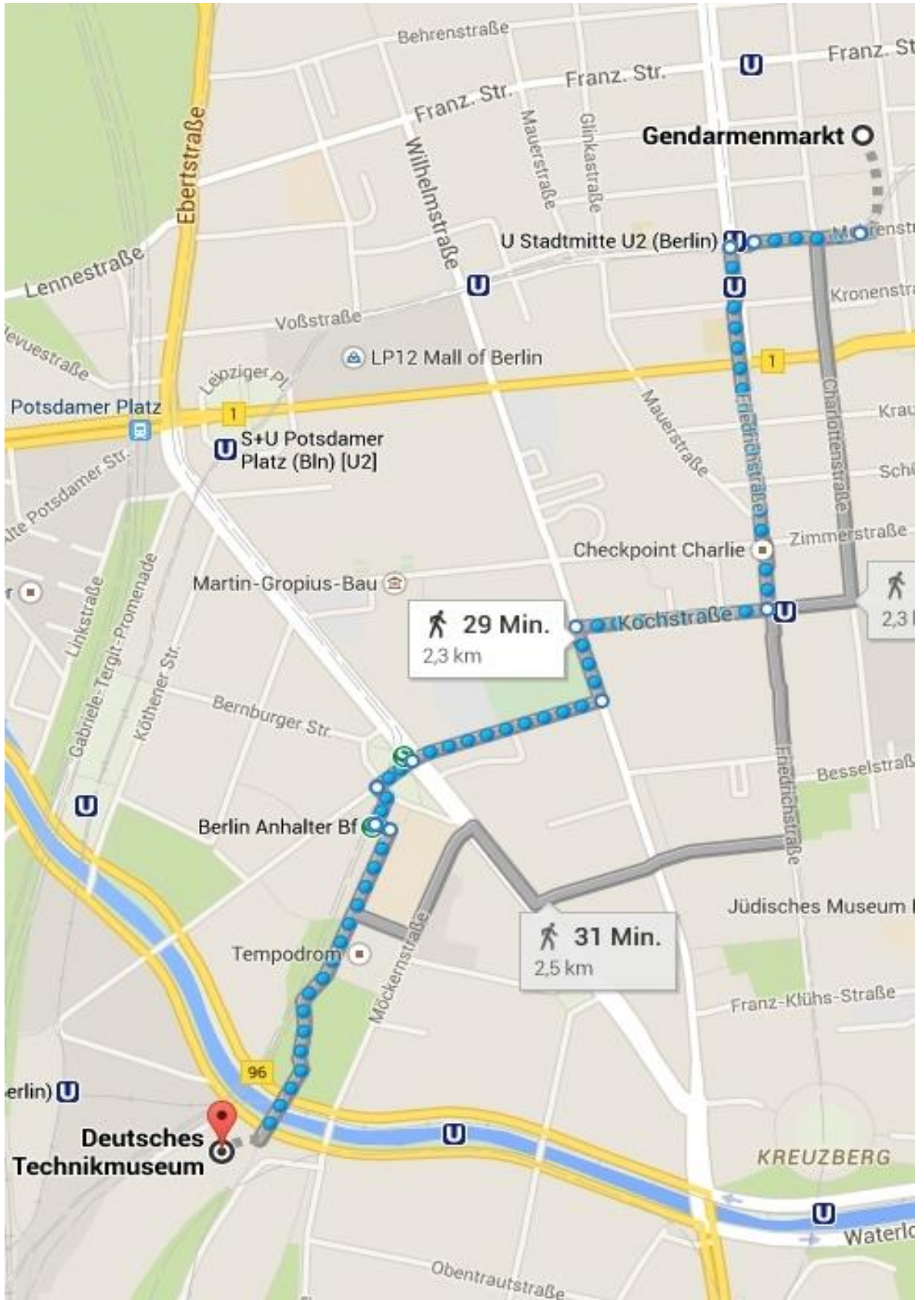
Appendix A



Appendix B



Appendix C



Appendix D

