



**5th NU-NIMS Materials Genome Workshop
Northwestern University, March 28, 2017
Preliminary Program**



Tuesday 28 March

**CHiMaD HQ, Hogan Hall 1st floor
MSE Conference Room, Cook Hall 2058
<http://www.northwestern.edu/campus/maps.html>**

8:30 Registration (Coffee & Pastry) (CHiMaD HQ)

A. Opening: Research Initiatives (CHiMaD HQ)

9:00	Welcome	Prof. Gregory Olson, NU
9:10	NIMS Current & Future	Dr. Yoshio Aoki, NIMS
9:20	Advances in Phase Field Modeling	Prof. Peter Voorhees, NU
9:40	SIP Materials Integration Projects	Dr. Makoto Watanabe, NIMS
10:00	Activity of NIMS Creep Data Sheet Project	Dr. Kazuhiro Kimura, NIMS

BREAK

B. Materials Informatics (CHiMaD HQ)

10:30	New Publishing Strategy for Materials Informatics	Prof. Shu Yamaguchi, University of Tokyo
10:50	Materials Informatics and Big Data: Realization of 4th Paradigm of Science in Materials Science: Steel Fatigue Strength Predictor	Prof. Ankit Agrawal, NU
11:10	Computational Methods for Designing Microstructured Material Systems	Prof. Wei Chen, NU
11:30	Phase-field crystal simulation of grain growth	Dr. Akinori Yamanaka, Tokyo University of Agriculture and Technology
11:50	Computer Aided Material Development (CAMaD) using text mining	Dr. Ikumu Watanabe, NIMS

12:30 **Lunch** (Allen center)



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C1. Structural Materials (CHiMaD HQ)

14:00	Segregation and Ultrafine Grain Formation in Mg-Zn Alloys during Severe Plastic Deformation	Prof. Koichi Tsuchiya, NIMS
14:20	Waterless Martian Concrete: Experiment and Modeling	Prof. Gianluca Cusatis, NU
14:40	Functionalization of material surfaces by advanced thermal spray processes	Dr. Seiji Kuroda, NIMS
15:00	Influence of Aluminum and Vanadium Content on Mechanical Properties and Microstructure of Ultra High Strength Steel	Dr. Kenji Sugiyama, Daido Steel
15:20	SCA Approach to Fatigue in Additive Materials	Prof. Wing-Kam Liu, NU
15:40	Ink-Based Printing and Sintering of Metallic Scaffolds	Prof. David Dunand, NU
16:00	Deformation of hydrogen-storage-alloy actuator induced by hydrogen diffusion	Mr. Kenta Goto, Yokohama National University

C2. Polymers and functional materials (MSE Conference Room)

14:00	Metal-oxide Interfit Catalysts for Exhaust Remediation	Dr. Hideki Abe, NIMS
14:20	Nanocrystallization phase separation: new route for mesoporous polymers	Dr. Sadaki Samitsu, NIMS
14:40	Polymerization Catalysis and Printed Electronics	Prof. Tobin Marks, NU
15:00	Conformational Dynamics of Imide-Based π -Molecular Assemblies	Dr. Atsuro Takai, NIMS
15:20	NanoMine: Polymer Nanocomposites and Beyond	Prof. Catherine Brinson, NU
15:40	Development of active polymer coating	Prof. Masanobu Naito, NIMS

D. Closing (CHiMaD HQ)

16:20	Closing	Prof. Robert Chang, NU and Prof. Koichi Tsuchiya, NIMS
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