An International Winter School and Symposium on Statistical Mechanics and Simulation of Nonlinear Dynamics, Organised by the State Key Laboratory of High Performance Computing, Changsha, China, January 3rd - 7th, 2014

	Friday, Jan. 3rd	Saturday, Jan. 4th	Sunday, Jan. 5th	Monday, Jan. 6th	Tuesday, Jan. 7th
08:00-08.50	Lecture 1 by Woodcock	Lecture 3 by Blumenfeld	Lecture 1 by Kawakatsu	Lecture 3 by Westerhoff	Lecture 5 by Doi
08.50-09.00	**Brief Break**				
09.00-10.00	Lecture 2 by Woodcock	Lecture 4 by Blumenfeld	Lecture 2 by Kawakatsu	Lecture 4 by Westerhoff	Lecture 6 by Doi
10.00-10.30	**Tea & Coffee**				
10.30-11.20	Lecture 1 by Blumenfeld	Lecture 5 by Woodcock	Lecture 5 by Blumenfeld	Lecture 3 by Kawakatsu	Lecture 5 by Kawakatsu
11.20-11.30	**Brief Break**				
11.30-12.30	Lecture 2 by Blumenfeld	Lecture 6 by Woodcock	Lecture 6 by Blumenfeld	Lecture 4 by Kawakatsu	Lecture 6 by Kawakatsu
12.30-14.00	**Lunch**				
14.00-14.50	Lecture 3 by Woodcock	Lecture 1 by Westerhoff	Lecture 1 by Doi	Lecture 3 by Doi	Lecture 5 by Westerhoff
14.50-15.00	**Brief Break**				
15.00-16.00	Lecture 4 by Woodcock	Lecture 2 by Westerhoff	Lecture 2 by Doi	Lecture 4 by Doi	Lecture 6 by Westerhoff
16.00-16.30	**Tea & Coffee**				
16.30-17.30	Seminar 1 by Woodcock	Seminar by Blumenfeld	Seminar by Man	Seminar by Kawakatsu	Close
17.30-20.00	**Dinner**				
20.00-21.00	Free Discussion	Seminar 2 by Woodcock	Seminar by Doi	Seminar by Westerhoff	

Title of Individual Lecture or Seminar

Lecture 1 by Woodcock	Simulation of chemical systems: general principles
Lecture 2 by Woodcock	Molecular dynamics modelling: history and methodology
Lecture 3 by Woodcock	Statistical thermodynamics and Monte Carlo calculations
Lecture 4 by Woodcock	Non-equilibrium molecular dynamics simulation: non-linear processes
Lecture 5 by Woodcock	Meso-scale modelling: applications to collids and chemical engineering
Lecture 6 by Woodcock	Applications: solids, liquids and gases, and phase transitions
Seminar 1 by Woodcock	High-performance computing: future and grand challenges
Seminar 2 by Woodcock	Molecular simulations of percolation transitions and critical phenomena
Lecture 1 by Blumenfeld	Stress transmission in granular packs – why do conventional theories fail
Lecture 2 by Blumenfeld	Isostaticity theory and extension of isostaticity theory for real granular matter
Lecture 3 by Blumenfeld	Statistical mechanics of granular media – (i) the Edwards formalism
Lecture 4 by Blumenfeld	Statistical mechanics of granular media – (ii) Derivation of expectation values and homogenization
Lecture 5 by Blumenfeld	Fracture propagation in geo-materials - the single fracture dynamics
Lecture 6 by Blumenfeld	Fracture propagation in geo-materials - from single fracture to network formation
Seminar by Blumenfeld	The da Vinci fluid model

Lecture 1 by Westerhoff	Systems biology and genomics; methodologies, opportunities, and challenges
Lecture 2 by Westerhoff	Principles of Biological Systems: control and regulation in a nonlinear robust world
Lecture 3 by Westerhoff	Simulation of intracellular dynamics with a whole body perspective
Lecture 4 by Westerhoff	Yeast glycolytic oscillations and synchronization
Lecture 5 by Westerhoff	Nonlinear statistical mechanics, biological energetics and gene expression
Lecture 6 by Westerhoff	ICT for Medicine: computing the virtual human; what it takes to compute 7 billion virtual patients
Seminar by Westerhoff	Systems Biology: the quintessential science of emergence
Lecture 1 by Kawakatsu	Introduction: overview of the physics of complex fluids
Lecture 2 by Kawakatsu	Phase behavior and coarse-graining
Lecture 3 by Kawakatsu	Density functional theories of polymeric mixtures
	--- Ginzburg-Landau theory and self-consistent field theory: An introduction ---
Lecture 4 by Kawakatsu	Dynamics of interfaces in phase-separating mixtures
Lecture 5 by Kawakatsu	Static self-consistent field theory for polymeric systems
Lecture 6 by Kawakatsu	Dynamic extension of the self-consistent field theory
Seminar by Kawakatsu	Field theoretic approaches to polymer/membrane systems
Seminar by Man	Coherent states formulation of polymer field theory
Lecture 1 by Doi	General principle in dynamics of soft matter
Lecture 2 by Doi	Wetting and permeation in granular systems
Lecture 3 by Doi	Collective effect in diffusion and permeation
Lecture 4 by Doi	Stress diffusion coupling in colloidal systems
Lecture 5 by Doi	Stress diffusion coupling in phase separation
Lecture 6 by Doi	Stress diffusion coupling in gels
Seminar by Doi	Mechanical properties of ABA triblock copolymers - A study using OCTA