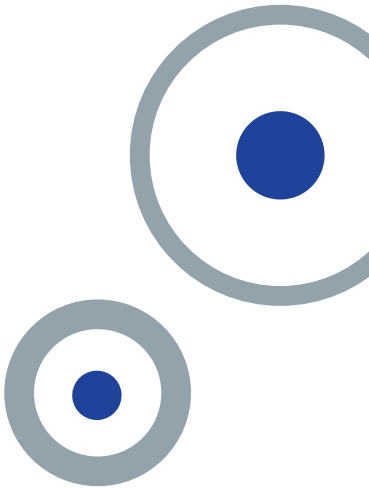
ICAMS 2
INTERDISCIPLINARY COLLOQUIUM ON ADVANCED MATERIALS SIMULATION
COLLOQUIUM



Invited Talk, Monday, May 6, 11:00 a.m. - 11:40 a.m., ICAMS^2 session: **M1**

Non-cubic ferrite

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It is generally assumed that the phase diagrams and equilibrium thermodynamic data that apply to the conventional Fe-C system are also relevant to the case where supersaturated ferrite is in contact with austenite. This may not be correct, since a change in the symmetry of the ferrite unit cell in the presence of excess carbon has the potential to alter the nature of the phase equilibrium. The implications of these discoveries are presented in the context of the mechanisms of phase transformations in steels. Furthermore, the importance that should be attached to the tetragonal symmetry of the octahedral interstices in the ferritic allotrope of iron will be discussed. A variety of simulations and experimental validation techniques will be presented to support the ideas.