

**ROMAC ANNUAL MEETING SCHEDULE**  
**RIO All Suites Hotel and Casino**  
**Las Vegas, NV**  
**JUNE 10-13, 2007**

**SUNDAY, JUNE 10, 2007**

**Location: Barrel Room**

**6:30-8:30 pm**– Reception and Early Registration – Karen Marshall, UVA

**MONDAY, JUNE 11, 2007**

**Location: Miranda 3**

**7:30-8:00 am** - Registration – Karen Marshall, UVA

**8:00-8:05 am** - Welcome – Paul Allaire, ROMAC Director

**SESSION 1. OVERVIEWS I – Leader: Chris Goyne/Aide: Marion Reid**

**8:05-8:40 am** - ROMAC Program - Introduction, Faculty, Staff, Students, Overall Program Directions – Paul Allaire, UVA

**8:40-9:20 am** – Keynote Address: Mechanical Issues in Oil and Gas Production- Mike Drosjack, Shell Global Solutions

**9:20-9:40 am** - Rotordynamics Overview – Pradip Sheth, UVA

**9:40-10:00 am** – Fluid Bearings Overview – Paul Allaire, UVA

**10:00-10:15 am** – Break

**SESSION 2. OVERVIEWS II – Leader: Pradip Sheth/Aide: Amir Younan**

**10:15-10:35 am** - [Seals Experimental Overview](#) – Chris Goyne - UVA

**10:35-11:00 am** – [Computational Fluid Flow in Rotating Machinery](#)  
– Houston Wood, UVA

**11:00-11:20 am** – [Magnetic Bearings](#) – Zongli Lin, UVA

**11:20-11:40 am** – [ROMAC Software Update](#) – Minhui He, UVA

**11:40-12:00 pm** – [ROMAC Graphical User Interface](#) – Bob Ribando, UVA

**12:00-1:00 pm**(Miranda 4) – Lunch

**SESSION 3. FLUID FILM BEARINGS I – Leader: Zongli Lin/Aide: Simon Mushi**

**1:00-2:00 pm** – [Design of Fluid Film Bearing Test Rig for Oil and Water Bearings](#)– Tim Dimond, Bob Rockwell, Paul Allaire, Pradip Sheth, UVA, Scott Jacobs, IPS

**2:00-2:30 pm** – [Force Measurement Test Rig](#) – Tim Dimond, Bob Rockwell, Wei Jiang, Paul Allaire, Pradip Sheth, UVA, Scott Jacobs, IPS

**2:30-3:10 pm** – [Stability of Rotors Supported By Tilt Pad Journal Bearings](#), Hunter Cloud, BRG Machinery

**3:10-3:30 pm** – [Investigation of Water – Lubricated Journal Bearing Using Conventional & CFD Approaches](#) - Minhui He, UVA

**3:30-3:45 pm** – Break

**SESSION 4. ROTORDYNAMICS 1 – Leader: Chris Goyne, Aid: Josh Keely**

**3:45-4:15 pm** – Comprehensive Rotor Dynamics Analysis with ROMAC Programs and NASTRAN – Pradip Sheth

**4:15-4:45 pm** – NASTRAN Rotordynamics – Shawn Shamsian and Hassan Bayoumi, MSC Software

**4:45-5:15 pm** – [Coupled Lateral/Torsional/Axial Rotordynamics Analysis ComboRotor](#) – Minhui He, Pradip Sheth, Jawad Choudry, Paul Allaire

**5:15-5:45 pm** – [Rotor Bearing System Dynamics in Matlab Environment](#) – Jawad Choudry, Pradip Sheth, UVA

Dinner – **On Your Own**

**TUESDAY, JUNE 12, 2007**

**Location: Miranda 3**

**7:30-8:00 am** – Continental Breakfast

**SESSION 5. GEAR TRAINS AND ROLLING ELEMENT BEARINGS – Leader: Minhui He/Aide: Stephen Evans**

**8:00-8:45 am** – [Elastohydrodynamic Lubrication in Cylindrical Roller Bearings and Spur Gear Teeth](#) – Amir Younan, Paul Allaire, UVA

**8:45-9:15 am** – [Elastohydrodynamic Lubrication of Ball Bearings and Beveled Gear Teeth](#) – Amir Younan, Paul Allaire, Blake Stringer, Pradip Sheth

**9:15-10:00 am** – [Advanced Gear Stiffness Analysis](#) – Blake Stringer, Pradip Sheth, Amir Younan, Paul Allaire

**10:00-10:15 am** – Break

**SESSION 6. SEAL TEST RIGS – Leader: Wei Jiang/Aide: Pablo Yoon**

**10:15-11:00 am** – [Initial Seal Test Experiment](#) – Josh Keely, Chris Goyne, UVA

**11:00 – 11:30 am** – [Preliminary Design of Seal Test Rig](#) - Marion Reid, Josh Keely, Chris Goyne, Paul Allaire, UVA

**SESSION 7. TUNNEL BORING – Leader: Paul Allaire**

**11:30-12:00 pm** – Tunnel Boring Machine Technology and Applications – Lijie Du, UVA Visiting Prof.

**12:00-1:00 pm** (Miranda 4)– Lunch

**SESSION 8. ROMAC GRAPHICAL USER INTERFACE – Leader: Minhui He**

**1:00-1:30 pm** – [ROMAC Graphical User Interface Development](#) – Andy Edwards, Bob Ribando

**1:30-2:30 pm** – Plans for ROMAC Software User Interface Development/Open Discussion – Bob Ribando, Paul Allaire, UVA

**SESSION 9 – FLUID FILM BEARINGS II – Leader: Bob Rockwell/Aide: Amir Younan**

**2:30-3:00 pm** – Babbit Bearing Inspection Intervals- John Whalen, TCE

**3:00-3:45 pm** – [Identification of Dynamic Coefficients for Water and Oil Lubricated Bearings](#) – Tim Dimond, Pradip Sheth, Paul Allaire

**TURN IN COMPANY RESEARCH SURVEY FORMS – Turn in to P. Allaire by 3:45 pm**

**3:45-4:00 pm** - Break

**SESSION 10 – MAGNETIC BEARINGS AND ROTORDYNAMICS I – Leader: Bob Ribando, Aide: Simon Mushi**

**4:00-4:30 pm** - [Mechanical Design of Flexible Rotor/Magnetic Bearing Test Rig](#) – Stephen Evans, Simon Mushi, Paul Allaire, Zongli Lin

**4:30-5:00 pm** - [Control Design for a Flexible Rotor Supported on Active Magnetic Bearings](#) – Simon Mushi, Zongli Lin, Stephen Evans, Paul Allaire

**Dinner- On Your Own**

**WEDNESDAY, JUNE 13, 2007**

**Location: Miranda 3**

**7:30-8:00 am** – Continental Breakfast

**SESSION 11. MAGNETIC BEARINGS AND ROTORDYNAMICS II – Leader: Alex Untaroiu/Aid: Nina Mohleji**

**8:00-8:30 am** — [Self Sensing Magnetic Bearings](#) – Wei Jiang, Paul Allaire, UVA

**8:30-9:00 am** – [Testing of Self Sensing Magnetic Bearings in Cryogenic Environment](#) – Gavin Garner, Wei Jiang, Paul Allaire, Pradip Sheth

**9:00-9:30 am** – [Optimum Control of Magnetic Bearing Supported Rotors](#) – Zongli Lin

**9:30-10:00 am** – [Development of Flywheel Energy Storage System](#), Yohei Kakiuchi, Mitsubishi Heavy Industries

**10:00-10:15 am** – Break

**SESSION 12. FUTURE RESEARCH RESULTS AND MEMBER COMMENTS – Leader: Paul Allaire/Aide:Tim Dimond**

**10:15 am -12:00 pm** – ROMAC Member Company Research Results and Discussion – Paul Allaire, ROMAC Faculty, UVA

**12:00-1:00 pm** (Miranda 4) – Lunch

**1:00-1:10 pm** – ROMAC Advanced Rotordynamics Short Course, July 23-27, 2007 – Paul Allaire, UVA

**SESSION 13. SEAL COMPUTATIONAL RESEARCH – Leader: Paul Allaire/Aide: Tim Dimond**

**1:10-1:40 pm** – [CFD Methods for Seal Analysis](#) – Houston Wood, Alex Untaroiu

**1:40 – 2:10 pm** – [Seal – Evaluation of CFD Tools for Seal Analysis](#), Nina Mohleji

**SESSION 14. ARTIFICIAL HEART PUMP DESIGN – Leader: Bob Ribando/ Aide: Simon Mushi**

**2:10-2:40 pm** – [Design of Artificial Heart Pump Flow Path](#) – Houston Wood, Alex Untaroiu, Amer Al-Dhafiri, UVA

**2:40-3:10 pm** – [Mechanical Design of Magnetic Suspended Artificial Heart Pump](#) – Stephen Evans, Wei Jiang, Zongli Lin, Paul Allaire, UVA

**3:10-3:25 pm**- Break

**SESSION 15. COMPRESSOR SURGE TEST RIG – Leader: Houston Wood, Aid: Gavin Garner**

**3:25-3:55 pm** – [Compressor Surge Suppression Test Rig](#) – Zongli Lin, Dorsa Sanadgol, Pablo Yoon, Chris Goyne, Houston Wood, Alex Untaroiu, Paul Allaire, UVA

**3:55-4:30 pm** – [Control of Compressor Test Rig Magnetic Bearing System](#) – Pablo Yoon, Zongli Lin, Paul Allaire, UVA

**SESSION 16. ROTORDYNAMICS/MAGNETIC BEARINGS III – Leader: Pradip Sheth/ Jawad Chaudhry**

**4:30 – 5:00 pm** – API/ISO Standards on Magnetic Bearing Supported Rotors – Paul Allaire, Zongli Lin, UVA

**5:00 pm** – End of Meeting