08:30-9:00 REGISTRATION
09:00-9:20 OPENING
09:20-10:20 CABLE DRIVEN ROBOTS I CHAIR: E. Ottaviano

- (PAPER#05) [09:20-09:40] J-P. Merlet, Further Analysis of the 2-2 Wire-Driven Parallel Crane
- (PAPER#02) [09:40-10:00] L. Notash, On the Minimum 2-Norm Positive Tension for Wire-Actuated Parallel Manipulators
- (PAPER#14) [10:00-10:20] A. Ghasem and M. Carricato, Direct Geometrico-Static Problem of Under-Constrained Cable-Driven Parallel Robots with 5 Cables

10:20-10:40 COFFEE BREAK

10:40-12:00 CABLE DRIVEN ROBOTS II CHAIR: J-P. Merlet

- (PAPER#19) [10:40-11:00] V. Schmidt, B. Müller, and A. Pott, Solving the Forward Kinematics of Cable-Driven Parallel Robots with Neural Networks and Interval Arithmetic
- (PAPER#70) [11:40-12:00] G. Castelli and E. Ottaviano, A Cartesian Cable-Suspended Robot for Aiding Mobility

12:00-14:00 LUNCH BREAK

14:00-15:00 MECHANISMS CHAIR: J. Angeles

- (PAPER#07) [14:00-14:20] S. Li, H. Wang, J. Dai, X. Li, Z. Ren, and S. Xiu, Topological Representation and Operation of Motion Space Exchange Reconfiguration of Metamorphic Mechanism
- (PAPER#21) [14:20-14:40] Z. Li and J. Schicho, Three Types of Parallel 6R Linkages
- (PAPER#60) [14:40-15:00] C. Huang, W.T. Huang, and G. Kiper, A Closed-Form Solution of Spatial Sliders for Rigid-Body Guidance

15:00-15:20 COFFEE BREAK

15:20-16:40 PARALLEL ROBOTS CHAIR: S. Bandyopadhyay

- (PAPER#55) [15:40-16:00] A.G.L. Hoevenaars, P. Lambert, and J.L. Herder, Kinematic Design of Two Elementary 3DOF Parallel Manipulators with Configurable Platforms
- (PAPER#17) [16:00-16:20] M. Urízar, V. Petuya, M. Diez, and A. Hernández, Dimensional Synthesis of a Spatial Orientation 3-DoF Parallel Manipulator by Characterizing the Configuration Space

16:40-17:00 COFFEE BREAK

17:00-18:00 SYNTHESIS CHAIR: C. Huang

- (PAPER#62) [17:00-17:20] J. Angeles, Foundations for the Approximate Synthesis of RCCC Motion Generators
- (PAPER#46) [17:28-17:40] L. Nurahmi, S. Caro, and S. Briot, Type Synthesis of Two DOF Translational Parallel Manipulators with Hybrid Legs
- (PAPER#67) [17:40-18:00] B. Batbold, Y. Yihun, J.S. Wolper, and A. Perez-Gracia, Exact Workspace Synthesis for RCCR linkages
08:30-9:00  REGISTRATION

09:00-10:20  SINGULARITIES  CHAIR: L. Notash

- [PAPER#09] [09:00-09:20] S. Piipponen, T. Arponen, and J. Tuomela, Classification of Singularities in Mechanism Kinematics
- [PAPER#46] [09:40-10:00] C. Borcea and I. Streinu, Singularity Locus for the Endpoint Map of Serial Manipulators with Revolute Joints
- [PAPER#65] [10:00-10:20] M. Husty, J. Schadlbauer, S. Caro, and Ph. Wenger, Non-Singular Assembly Mode Change of 3-RPS Manipulators

10:20-10:40  COFFEE BREAK

10:40-12:00  THEORETICAL KINEMATICS  CHAIR: M. Husty

- [PAPER#06] [10:40-11:00] J.M. Selig, Some Rational Vehicle Motions
- [PAPER#56] [11:20-11:40] M. Carricato, Four-Dimensional Persistent Screw Systems of the General Type
- [PAPER#57] [11:40-12:00] G. Liu, Y. Wu and X. Chen, Single Exponential Motion and Its Kinematic Generators

12:00-14:00  LUNCH BREAK

14:00-15:00  PLANAR LINKAGES  CHAIR: J. Herder

- [PAPER#29] [14:00-14:20] C-C. Lee and J.M. Hervé, A Blend of Delassus Four-Bar Linkages
- [PAPER#36] [14:20-14:40] O. Shai and A. Müller, Computational Algorithm for Determining the Generic Mobility of Floating Planar and Spherical Linkages
- [PAPER#72] [14:40-15:00] E. Ottaviano, P. Rea, and M. Conte, Kinematic Analysis of Slider-Cranks Derived from the $\lambda$-Mechanism

15:00-15:20  COFFEE BREAK

15:20-16:40  APPLICATIONS I  CHAIR: D. Pisla

- [PAPER#73] [15:40-16:00] F.P. Rad, G. Berselli, R. Vertechy, and V. Parenti-Castelli, Evaluating the Spatial Compliance of Circularly Curved-Beam Flexures
- [PAPER#23] [16:20-16:40] A. Colomé and C. Torras, Positioning two Redundant Arms for Cooperative Manipulation of Objects

16:40-17:00  COFFEE BREAK

17:00-18:00  APPLICATIONS II  CHAIR: L. Romdhane

- [PAPER#15] [17:00-17:20] S. Bai, Shape Modeling of Variable Curvature Continuum Robots
- [PAPER#20] [17:20-17:40] T. Ikeda, Y. Takeda, and D. Matsuura, Spherical Parallel Mechanism with Variable Target Point
- [PAPER#41] [17:40-18:00] J. Borras-Sol and A. Dollar, Framework comparison between a multifingered hand and a parallel manipulator
14:00–15:20  **DYNAMICS AND CONTROL**  CHAIR: C. Pinto

- [PAPER#26] [14:00-14:20] T. Gayral and D. Daney, *Necessary Conditions for Calibration and Observability Issues*
- [PAPER#18] [14:20-14:40] A. Müller and M. Ruggiu, *Self-Calibration of Redundantly Actuated PKM Exploiting Kinematic Landmarks*
- [PAPER#33] [14:40-15:00] A. Klimchik, S. Caro, Y. Wu, D. Chablat, B. Furet, and A. Pashkevich, *Stiffness Modeling of Robotic Manipulator with Gravity Compensator*

15:20–15:40  **COFFEE BREAK**

15:40–17:00  **WORKSPACE CHARACTERIZATION, POSITION ANALYSIS AND PATH PLANNING**  CHAIR: A. Kecskeméthy

- [PAPER#36] [15:40-16:00] A.S. Rangaprasad and S. Bandyopadhyay, *Determination of the Safe Working Zone of a Parallel Manipulator*
- [PAPER#27] [16:40-17:00] L. Ros, J.M. Porta, O. Bohigas, M. Manubens, C. Rosales, and L. Jaillet, *An Open-Source Toolbox for Motion Analysis of Closed-chain Mechanisms*