GNB2014 sessione poster Biomeccanica e Biorobotica

B-1 Sara Matteoli, Antonio Virga, Iacopo Paladini, Carlotta Boccalini, Rita Mencucci and Andrea Corvi. Porcine corneal elasticity after cross-linking
B-2 Stefano Mazzoleni, Lorenzo Buono, Paolo Dario and Federico Posteraro. Effects of initial exposure to upper limb robot-assisted therapy in stroke patients
B-3 Marta Tunesi, Michele M Nava, Francesca Caterina, Carmen Giordano, Diego Albani and Manuela T Raimondi. Neuroprotective effect of mesenchymal stromal cells in a 3D model of Parkinson's disease
B-4 Emanuele Luigi Carniel, Chiara Giulia Fontanella and Arturo N Natali. Mechanical behaviour of the heel pad in healthy and degenerative conditions
B-5 Chiara Giulia Fontanella, Emanuele Luigi Carniel and Arturo N Natali. Numerical analysis of the biomechanical behaviour of the forefoot
B-6 Alessandro Frigo, Emanuele Luigi Carniel, Vera Gramigna, Margherita Mencatelli, Gabriella Bonsignori, Giulia Favaro, Cesare Stefanini and Arturo N Natali. Investigation of gastrointestinal tissues and structures biomechanical response
B-7 Michele Maria Nava, Manuela Teresa Raimondi, Giulio Cerullo and Roberto Osellame. Synthetic three-dimensional niches to control mesenchymal stromal cell colonization in vitro
B-8 Marta Serrani, Massimiliano Mariani, Roberto Fumero and Maria Laura Costantino. The Influence of Cardiac Trabeculae on Ventricular Mechanics
B-9 Gloria Casaroli, Nicolò Cavalli, Luca Francetti, Fabio Galbusera and Tomaso Villa. Comparative evaluation of the effect of implant length and crown height in edentulous patients: a Finite Element study
B-10 Alessandra Scarton, Annamaria Guiotto, Zimi Sawacha, Gabriella Guarneri, Angelo Avogaro and Claudio Cobelli. 2-Dimensional foot FE models for clinical application in gait analysis
B-11 Lorenzo Bisoni, Nicola Carta, Roberto Puddu, Caterina Carboni, Massimo Barbaro and Luigi Raffo. A multi-channel recording/stimulation device for neuro-prosthetic application
B-12 Giuseppe Criscenti, Carmelo De Maria, Matteo Tei, Enrico Sebastiani, Giacomo Placella, Andrea Speziali and Giuliano Cerulli. Biomechanics of Medial patello-femoral ligament: Quasi-linear viscoelastic properties
B-13 Luigi Iuppariello, Maria Romano, Giovanni D'Addio, Giuliana Faiella, Paolo Bifulco and Mario Cesarelli. Comparison of Measured and Predicted reaching movements with a robotic rehabilitation device
B-14 Ilaria Baldoli, Selene Tognarelli, Francesca Cecchi, Arianna Menciassi and Cecilia Laschi. An active neonatal pulmonary simulator for high-fidelity training in mechanical ventilation
B-15 Gian Luca Gervasi, Marco Freddolini, Roberto Tiribuzi and Giuliano Cerulli. In vitro patello-femoral kinematic analysis using a custom-made patella and navigation system.
B-16 Michele Marino and Giuseppe Vairo. Upscaling biochemical and biophysical effects in tissue mechanical modelling
B-17 Luigi La Barbera, Fabio Galbusera, Hans-Joachim Wilke and Tomaso Villa. Preclinical evaluation of posterior spinal fixators: a parametric FEA on international standards
B-18 Antonella Forestiero, Emanuele Luigi Carniel and Arturo N Natali. Biomechanical behaviour of the foot ankle ligaments

B-19 Chiara Venturato, Piero G Pavan, Antonella Forestiero, Emanuele Luigi Carniel and Arturo N Natali. Biomechanical behaviour of tibio-talar joint in stance and push-off configuration with degraded articular cartilage
B-20 Federica Aprigliano, Dario Martelli, Vito Monaco and Silvestro Micera. Kinematics determinants during unperturbed and perturbed walking
B-21 Grazia Spatafora, Ilaria Bargigia, Markus Malo, Federico Tortelli, Mohamad Shahgholi, Marco Domenicucci, Marco Agnoletto, Pasquale Vena, Giuseppe M Peretti, Jeffrey A Hubbell, Jukka Jurvelin, Antonio Pifferi, Paola Taroni and Federica Boschetti. Optical, mechanical and biochemical characterization of trabecular bone
B-22 Mara Terzini, Cristina Bignardi, Carlotta Castagnoli, Elisabetta Zanetti and Alberto Audenino. Influence of cell removal treatment on dermis mechanical behaviour
B-23 Valentina Danesi, Stephen J. Ferguson, Nicola Brandolini, Paolo Erani, Marco Viceconti and Luca Cristofolini. Stiffness, strength and strain distribution in the augmented vertebrae
B-24 Francesco De Gaetano, Marta Serrani, Paola Bagnoli, Jacob Brubert, Joanna Stasiak, Geoff Moggridge and Maria Laura Costantino. Fluid Dynamic Performance of New Polymeric Heart Valves Prototypes tested under Continuous and Pulsatile Flow Condition
B-25 Mirko Bonfanti, Paola Bagnoli, Sara Arlati, Antonio Cammi and Maria Laura Costantino. Computational model of CO2 removal in a prototype for neonatal Total Liquid Ventilation
B-26 Ettore Etenzi, Vito Monaco and Silvestro Micera. Passive bipedal walker provided with spring-damping legs.
B-27 Paola Bagnoli, Fabio Acocella, Mirko Bonfanti, Annalisa Canta, Francesco De Gaetano, Matteo Ghiringhelli, Gabriella Nicolini, Norberto Oggioni, Giovanni Tredici, Stefano Tredici and Maria Laura Costantino. A new non-volumetric pulsatile ventilator prototype for neonatal Total Liquid Ventilation
B-28 Paola Pachera, Piero Pavan, Carlo Reggiani, Giulia Favaro and Arturo Natali. Numerical investigation of human crural fascia
B-29 Elisabetta M Zanetti and Giordano Franceschini. Lower Leg Injury in relation to Vehicle Front-End
B-30 Federico Renda, Frederic Boyer and Cecilia Laschi. Dynamic model of a jet propelled soft robot
B-31 Elisabetta M Zanetti, Luca Mossa, Cristina Bignardi, Aldo Vezzoni and Piero Costa. Structural model of DPO surgery for the treatment of canine hip dysplasia
B-32 Francesco Sturla, Francesco Onorati, Emiliano Votta, Marco Stevanella, Aldo Milano, Konstantinos Pechlivanidis, Giovanni Puppini, Giuseppe Faggian and Alberto Redaelli. Mitral Valve Prolapse Repair Through ePTFE Neochordae: FE Analysis From CMR Data
B-33 Mara Terzini, Anna Rita Ciccola, Giulio Menicucci, Carlo Manzella, Stefano Carossa, Elisabetta Maria Zanetti, Cristina Bignardi and Alberto Audenino. Experimental set-up for the study of dental implant retrieval
B-34 Margherita Brancadoro, Selene Tognarelli, Gastone Ciuti, Andrea Peri, Andrea Pietrabissa and Arianna Menciassi. A versatile and adaptable magnetic retraction system for minimally invasive surgery
B-35 Elena Dordoni, Dario Allegretti, Lorenza Petrini, Claudio Silvestro, Carlo Guala, Gabriele Dubini, Francesco Migliavacca and Giancarlo Pennati. Nitinol peripheral stents: experimental validation of fatigue computational analyses
B-36 Alfonso Gautieri, Federica Crippa, Laura Bernardi, Jess Snedeker and Simone Vesentini. Collagen glycation: amino acids involved in nonenzymatic crosslinking and nanomechanical effects

B-37 Alessandra Pelosi, Annalisa Dimasi, Filippo Consolo, Gianfranco Beniamino Fiore, Stefano Reggiani and Alberto Redaelli. Multiscale CFD and hemodynamic shearing device to support design of blood contact devices
B-38 Samuele Argiolas, Giuseppe Tortora, Monica Vatteroni, Maria Giovanna Trivella and Paolo Dario. A dynamic control algorithm for ventricular assist devices based on physiological parameters
B-39 Rosario Mazzitelli, Fergal Boyle, Eoin Murphy, Attilio Renzulli, Giuseppe Filiberto Serraino and Gionata Fragomeni. Fluid-structure interaction analysis in a human aorta during pulsed cardiopulmonary bypass
B-40 Camilla Bianchi, Giustina Casagrande and Maria Laura Costantino. Development of a Two-pool Virtual Simulator of fluid and mass transfer in a dialysis patient
B-41 Mauro Ferraro, Ferdinando Auricchio, Michele Conti, Simone Morganti and Alessandro Reali. Isogeometric Analysis: a novel computational approach to evaluate the performance of endovascular stents
B-42 Giuseppe Isu, Timothy W. Clark, Diego Gallo, Pascal Verdonck and Umberto Morbiducci. A virtual test bench for the assessment of the flow dynamics in hemodialysis catheters
B-43 Simone Morganti, Ferdinando Auricchio, Michele Conti, Alessandro Reali and Marco Aiello. Investigation of TAVI outcomes through patient-specific finite element analysis: two clinical cases
B-44 Federico Cubeddu, Giuseppe Tortora, Arianna Menciassi, Giovanni Romano, Barbara Orsini and Franco Fusi. Ingestible capsule for the treatment of Helicobacter Pylori infections
B-45 Simone Cristofanelli, Diego Gallo, Jeong Chul Kim, Diana Massai and Umberto Morbiducci. Influence of boundary conditions in an image-based model of left coronary tree
B-46 Mariangela Manti, Matteo Cianchetti, Francesco Ursino and Cecilia Laschi. A physical model of the human larynx and a biorobotic prototype of vocal cords
B-47 Nino Cauli, Egidio Falotico, Alexandre Bernardino, José Santos-Victor and Cecilia Laschi. A robotic implementation of a reaching model based an a bio-inspired sensory anticipation system: the Expected Perception
B-48 Marco Ferroni, Serena Giusti, Grazia Spatafora, Federica Boschetti and Arti Ahluwalia. Fluid dynamics in porous scaffolds stimulated with cyclic squeeze pressure in the S2PR bioreactor
B-49 Nevio Luigi Tagliamonte, Fabrizio Sergi, Giorgio Carpino, Dino Accoto, Angela Marrelli, Pasquale Russi and Eugenio Guglielmelli. A non-anthropomorphic active wearable orthosis for lower limb rehabilitation
B-50 Francesca Lunardini, Claudia Casellato, Alessandra Pedrocchi, Andrea D'Avella and Terence D Sanger. Muscle synergies for real-time multi-DOF robotic control
B-51 Marco Raglianti, Alessia Licofonte, Giovanni Passetti, Francesco Rogai, Davide Zambrano, Matteo Cianchetti and Cecilia Laschi. NeuroMorphological Computation in a Sensory Motor Loop
B-52 Veronica Penza, Elena De Momi, Alessandro Bertini, Amedeo Bussi, Filippo Righetto, Renzo Zaltieri, Leonardo Mattos and Antonello Forgione. Enhanced Vision System to improve safety in Robotic Single Incision Laparoscopic Surgery
B-53 Mohamad Shahgholi, Sara Oliviero, Dario Gastaldi and Pasquale Vena. Mechanical characterization of Trabecular bovine bone in small scale
B-54 Sara Cremonesi, Letizia Abbiati, Giuseppe M Peretti and Federica Boschetti. Biomechanical characteristics of the swine knee menisci
B-55 Federico Di Palma, Carlo Rottenbacher, Alberto Ramponi, Andrea Cristiani, Gian Mario Bertolotti, Giovanni Mimmi and Lalo Magni. Towards the design of an effective SCI-Bike
B-56 Alessio Meoli, Alessia Baretta, Elena Cutrì, Gabriele Dubini, Francesco Migliavacca and Giancarlo Pennati. Cardiac biomechanics in patient-specific multi-scale models of single ventricle circulation