2nd Annual CAOS International Symposium and Surgical Academy June 19 – 23, 2002

Wednesday, June 19, 2002

3:00 p.m. - 6:00 p.m. Registration (Sweeney Conference Center)

6:30 p.m. - 9:30 p.m. Welcome Reception Open House (Inn at Loretto)

Thursday, June 20, 2002

7:00 a.m. Registration and Continental Breakfast

8:00 a.m. Introduction

Session I – TKA

Session Chairs - Rudan, J. and Stulberg, S.D.

8:10 a.m. Computer-Assisted Total Knee Replacement: Results of the First Thirty Cases using the Stryker Navigation System©
[1]Phillips, M. J., [1]Krackow, K.A., [2]Bayers-Thering, M.
[1]State University of New York at Buffalo, USA and [2]Buffalo General Hospital, USA

8:20 a.m. Computer Assisted Total Knee Arthroplasty Implantation: To Release or not to Release?
Jenny, J.-Y. and Boeri, C.
Center for Orthopedic and Trauma Surgery of Strasbourg, FRANCE

8:30 a.m. Computerized Analysis of Surgical Skills in TKA using a Surgical Navigation System
[1]Conditt, M.A., [2]Noble, P.C., [1]Thompson, M.T., [1]Moy, G.J., [1]Ismaily, S.K., and [2]Mathis, K.B.
[1]Institute of Orthopedic Research and Education, USA and [2]Baylor College of Medicine, USA

8:40 a.m. First Clinical Trials of a "Hands-On" Active Constraint Robot
[1]Cobb, J., [2]Harris, S.J., [1]Jakopec, M., [2]Rodriguez y Baena, F., [2]Henckel, J., [1]Gomes, P., and [2]Davies, B.L.
[1]University College London Hospitals, UNITED KINGDOM, and [2]Imperial College, UNITED KINGDOM

8:50 a.m. Outcome of Computer-Navigated Total Knee Arthroplasty. One Year Follow-Up of a Prospective Randomized Trail
[1]Decking, R., [1]Markmann, Y., [1]Fuchs, J., [2]Scharf, H.-P., and [1]Puhl, W.
[1]University of Ulm, GERMANY and [2]Mannheim University, GERMANY

9:00 a.m. DISCUSSION

Session II - Spine

Session Chair - Radermacher, K.

9:10 a.m. A New Approach to Combine Visualization and Simulation for Preoperative Planning of Pedicle Screw Insertion
[1]Mueller-Wittig, W., [2]Bockholt, U., [1]Voss, G., and [3]Boerner, M.
[1]Centre for Advanced Media Technology, SINGAPORE, [2]Fraunhofer-IGD, GERMANY, and [3]BG Unfallklinik, GERMANY

9:20 a.m. Virtual Fluoroscopy for Percutaneous Placement of Pedicle Screws and Rod Insertion with the Sextant Rod Insertion System - Early Experiences from the First 20 Clinical Cases
Fritsch, E.W., Gödde, S., Seil, R., and Duchow, J.
University of Saarland, GERMANY

9:30 a.m. Bone-Mounted Miniature Robot for Surgical Spinal Procedures
[1,2]Shoham, M., [2]Burman, M., [2]Zehavi, E., [3]Joskowicz, L., [1]Batkilin, E., and [1]Kunicher, Y.
[1]Israel Institute of Technology, ISRAEL, [2]Masor Robotics Ltd., ISRAEL,
and [3]Hebrew University of Jerusalem, ISRAEL

9:40 a.m. Pedicle Screw Insertion with and without Computer Assistance - Two-Year Clinical Results of a Randomized Controlled Study in 100 Patients
Laine, T., Lund, T., Ylikoski, M., and Schlenzka, D.
ORTON Orthopaedic Hospital, FINLAND

9:50 a.m. DISCUSSION

10:00 a.m. Poster Session and Exhibit Inspection

Session III - Accuracy
Session Chairs - Nolte, L.-P. and Foley, K.

10:30 a.m. The Center of the Ankle in CT Less Based Navigation System. What is Really Important to Detect?
[1]Stindel, E., [2]Gyl, D., [3]Briard, J.L., [4]Plaweski, S., and [1]Lefevre, C.
[1]Hôpital de la Cavale Blanche, FRANCE, [2]Laboratoire de Traitement de l'Information Médicale, FRANCE, [3]Clinique du cédre, FRANCE, [4]Hôpital Michallon, FRANCE

10:40 a.m. Detection of the Center of the Hip in CT Less Based System for TKA Navigational Guidance: An Evaluation Study of the Accuracy and Reproducibility of the Surgetic's Algorithm
[1]Stindel, E., [2]Gyl, D., [3]Briard, J.L., [4]Merloz, P., [1]Dubrana, F., and [1]Lefevre, C.
[1]Hôpital de la Cavale Blanche, FRANCE, [2]Laboratoire de Traitement de l'Information Medicale, FRANCE, [3]Clinique du cédre, FRANCE, and [4]Hôpital Michallon, FRANCE

10:50 a.m. Estimation of Accuracy in Ankle Center Location for Tibial Mechanical Axis Identification using Computer Assisted Surgery Systems
[1]Nofrini, L., [2]Slomczykowski, M., [1]Iacono, F., [1]Zaffagnini, S., and [1]Marcacci, M.
[1]Istituti Ortopedici Rizzoli, ITALY and [2]DePuy International Ltd, UNITED KINGDOM

11:00 a.m. Accurate Measurement of Hip and Knee Prosthesis Placement from Postoperative X-Rays
[1]Edwards, P.J., [1]Penney, G.P., [2]Slomczykowski, M., and [1]Hawkes, D.J.
[1]King's College London, UNITED KINGDOM and [2]DePuy International Ltd., UNITED KINGDOM

11:10 a.m. Is Affine Registration Sufficiently Accurate for Image-Guided Surgery?
Burton, M., Rudan, J., and Ellis, R.
Queen's University, CANADA

11:20 a.m. DISCUSSION

11:30 a.m. Poster Session and Exhibit Inspection (Box Lunch)

12:40 p.m. **Panel Discussion**
What is the Role of CAOS in Orthopaedic Surgery?
Moderators DiGioia, A.M., III and Nolte, L.-P.

Session IV - Emerging Technologies

Session Chairs - Langlotz, F. and Kahler, D.

1:30 p.m. Computer Aided Pedicle Screw Placement using a Novel Laser Guidance System
[1]Tamura, Y., [1]Sugano, N., [1]Sasama, T., [1]Sato, Y., [2]Yonenobu, K., [1]Tamura, S., [1]Yoshikawa, H., and [1]Ochi, T.
[1]Osaka University Graduate School of Medicine, JAPAN
and [2]Osaka-Minami National Hospital, JAPAN

1:40 p.m. CT-Image based Planning and Navigation in TKR using Ligament Modeling and Individual Templates
[1]Portheine, F., [1]Ohnsorge, J.A.K., [2]Froemel, M., and [1]Radermacher, K.
[1]University Clinic Aachen, GERMANY and [2]Maingau Hospital Frankfurt, GERMANY

1:50 p.m. A See-Through Head-Mounted Display for Computer-Aided Surgery
[1]Birkfellner, W., [2]Figl, M., and [2]Bergmann, H.
[1]CARCAS-Group, SWITZERLAND and [2]Vienna General Hospital, AUSTRIA

2:00 p.m. Image Guidance without Images: Deformable Transformations for Surgical Guidance
Ellis, R., Athwal, G., and Rudan, J.
Queen's University, CANADA

2:10 p.m. Needle Tracking using the Aurora Magnetic Position Sensor
[1]Glossop, N.D., [2]Cleary, K., [3]Kull, L., and [2]Banovac, F.
[1]Traxtal Technologies LLC, USA, [2]Georgetown University Medical Center, USA, and [3]Traxtal Technologies Inc., CANADA

2:20 p.m. DISCUSSION

Session V - Special Poster Session, Part 1

Session Chair - Pichora, D.R.

2:30 p.m. Robot-Guided Long Bone Intramedullary Distal Locking: Concept and Preliminary Results
[1]Joskowicz, L., [2]Milgrom, C., [3,4]Shoham, M., [1]Yaniv, Z., and [2]Simkin, A.
[1]Hebrew University of Jerusalem, ISRAEL, [2]Hadassah University Hospital, ISRAEL, [3]Technion, ISRAEL, and [4]Masor Robotics Ltd., ISRAEL

2:35 p.m. Non-Invasive MR to 3D Rotational X-Ray Registration of Vertebral Bodies
[1,2]van de Kraats, E.B., [1,2]van Walsum, Th., [1]Verlaan, J.-J., and [1,2]Niessen, W.J.
[1]University Medical Centre Utrecht, THE NETHERLANDS
and [2]Image Sciences Institute, THE NETHERLANDS

2:40 p.m. Anatomical Registration Implementation and Results for a "Hands-On" Robotic Knee Surgery System
[1]Rodriguez y Baena, F.M., [1]Davies, B.L., [1]Jakopec, M., [1]Harris, S.J., [1]Gomes, P.S.F., and [2]Cobb, J.
[1]Imperial College, UNITED KINGDOM
and [2]University College London Hospitals Trust, UNITED KINGDOM

2:45 p.m. Minimally Invasive Registration Techniques for Surgical Navigation using Intraoperative Ultrasound
[1]Amin, D.V., [1]Kanade, T., [2]DiGioia, A.M., III, [2]Jaramaz, B., [2]Moody, J.E., [2]Nikou, C., [1]LaBarca, R.S., and [2]Levison, T.J.
[1]Carnegie Mellon University, USA and [2]The Western Pennsylvania Hospital, USA

2:50 p.m. Computer Assisted Fracture Reduction: A Novel Method for Analysis of Accuracy
[1]Geerling, J., [1]Hüfner, T., [1]Citak, M., [1]Richter, M., [1]Gössling, T., [2]Pohlemann, T., [3]Tarte, S., and [1]Krettek, C.
[1]Hannover Medical School, GERMANY, [2]University of Saarland, GERMANY, and [3]University of Bern, SWITZERLAND

2:55 p.m. Poster Session and Exhibit Inspection

3:30 p.m. Workshop Series I (Workshops 1, 3, 5, 7, 9, 11)

3:30 p.m. Rotation A

4:05 p.m. Rotation B

4:40 p.m. Rotation C

5:10 p.m. Adjourn for the Day

Friday, June 21, 2002

7:00 a.m. Registration and Continental Breakfast

Session VI – TKA

Session Chairs - Krackow, K. and Marcacci, M.

8:00 a.m. Mechanical Leg Axis Determination for Knee Navigation: Accuracy Analysis based on Clinical Data
[1]Friedrich, D., [2]Leitner, F., and [1]Kozak, J.
[1]Aesculap AG & Co. KG, GERMANY and [2]Aesculap S.A., FRANCE

8:10 a.m. Our Experiences with Robot Assisted Surgery in Comparison with Navigation and Manual Technique in Total Knee Arthroplasty
Mai, S., Lörke, C., and Siebert, W.
Orthopedic Clinic Kassel, GERMANY

8:20 a.m. Revision Total Knee Arthroplasty using a Navigation System
Radmer, S., Wolke, B., and Sparman, M.
Immanuel Hospital, Academic Teaching Hospital, Free University of Berlin, GERMANY

8:30 a.m. DISCUSSION

8:40 a.m. Intra-Operative User Interface of a "Hands-On" Surgical Robot
[1]Jakopec, M., [1]Rodriguez y Baena, F.M., [1]Harris, S.J., [1]Gomes, M.P.S.F., [1]Davies, B.L., and [2]Cobb, J.
[1]Imperial College, UNITED KINGDOM
and [2]University College London Hospitals Trust, UNITED KINGDOM

8:50 a.m. Intraoperative Feedback of Patello-Femoral Joint Alignment during Total Knee Arthroplasty
[1]Marx, A., [1]Kunz, M., [2]Bernsmann, K., [1]Liang, J., and [1]Nolte, L.-P.
[1]University of Bern, SWITZERLAND and [2]Girardet Clinic, GERMANY

9:00 a.m. Surgetics: A CT Less Based Navigation System for TKA using Morphological Informations without Preoperative Data. Principles and Preliminary Clinical Results
[1]Stindel, E., [2]Briard, J.L., [3]Merloz, P., [3]Plaweski, S., [1]Dubrana, F., and [1]Lefevre, C.
[1]Hôpital de la Cavale Blanche, FRANCE, [2]Clinique du cédre, FRANCE,
and [3]Hôpital Michallon, FRANCE

9:10 a.m. DISCUSSION

Session VII – Spine

Session Chairs - Schlenzka, D. and Cinquin, P.

9:20 a.m. Virtual Fluoroscopy for Pedicle Screw Insertion: A Clinical Study
[1]Merloz, P., [2]Huberson, C., [1]Tonetti, J., [1]Eid, A., [1]Vouaillat, H., [1]Anders, J., [1]Blendea, S.,
[1]Martinez, T., and [1]Plaweski, S.
[1]University Department of Orthopaedic Surgery Grenoble, FRANCE
and [2]Joseph Fourier University Grenoble, FRANCE

9:30 a.m. Fluoroscopy-Based Computer Assisted Navigation for Limited Invasive Corpectomy and Anterior Stabilization at the Thoracolumbar Junction
Segers, M.J.M., Bakker, F.C., Patka, P., Manoliu, R.A., Haarman, H.J.T.M.
Vrije Universiteit Medical Center, THE NETHERLANDS

9:40 a.m. Clinical Accuracy of Fluoroscopic Computer-Assisted Pedicle Screw Placement - A Prospective CT Analysis
Rampersaud, Y.R. and Pik, J.
Toronto Western Hospital, CANADA

9:50 a.m. Registration of 3D CT- and Ultrasound-Datasets of the Spine using Bone Structures
[1]Brendel, B., [1]Winter, S., [2]Rick, A., [1]Stockheim, M., and [1]Ermert, H.
[1]Ruhr-University Bochum, GERMANY and [2]ZN Vision Technologies AG, GERMANY

10:00 a.m. DISCUSSION

10:10 a.m. Poster Session and Exhibit Inspection

10:40 a.m. **Keynote Speaker – "Introduction to New Clinical Applications and New Approaches"**
Ruben C. Berumen
GE OEC Medical Systems Inc., USA

Session VIII – New Applications
Session Chairs - Taylor, R. and Pojedinec, J.

11:00 a.m. Is CT-Based Navigation Suitable for Total Elbow Arthroplasty?
[1]Langlotz, F., [2]Herren, D., [2]Simmen, B., and [2]Baumgartner, W.
[1]University of Bern, SWITZERLAND and [2]Schulthess-Clinic, SWITZERLAND

11:10 a.m. Fluoroscopic Navigation in the Treatment of Osteochondrosis Dissecans of the Talus
[1]Ohnsorge, J.A.K., [2]Radermacher, K., [1]Wildberger, J., [1]Prescher, A. and [1]Siebert, C.H.
[1]University Clinic Aachen, GERMANY
and [2]Helmholtz-Institut for Biomedical Engineering, GERMANY

11:20 a.m. Planning and Performing the Ilizarov Technique with the Taylor Spatial Frame
Iyun, O., Borschneck, D., and Ellis, R.
Queen's University, CANADA

11:30 a.m. Freehand Navigation for Arthroscopy Assisted Retrograde Drilling Procedure
[1]Marx, A., [1]Kunz, M., [2]Sobau, C., [1]Beutler, T., [2]Ellermann, A., and [1]Nolte, L.-P.
[1]University of Bern, SWITZERLAND and [2]Arcus Sportsclinic, GERMANY

11:40 a.m. DISCUSSION

11:50 a.m. Outcomes of Computer Assisted Distal Radius Osteotomy
Athwal, G., Pichora, D., Ellis, R., and Small, C.
Queen's University, CANADA

12:00 p.m. Closed Reduction and Percutaneous Internal Fixation of the High Anterior Column Acetabular Fracture
Kahler, D.M. and Crowl, A.C.
University of Virginia, USA

12:10 p.m. Computer Enhanced Periacetabular Osteotomy: A New Technique
Mayman, D., Ellis, R., Yach, J., and Rudan, J.
Queen's University, CANADA

12:20 p.m. DISCUSSION

12:30 p.m. Poster Session and Exhibit Inspection (Box Lunch)

Session IX – Registration

Session Chairs - Lavallee, S. and Cobb, J.P.

1:30 p.m. Estimating Registration Accuracy using a Probability-Based Approach
Bächler, R., Nemec, B., Bunke, H., and Nolte, L.-P.
University of Bern, SWITZERLAND

1:40 p.m. Evaluating Accuracy and the Effect of Data Quantity on Surface-Based Registration of the Hip and Knee
[1]Davidson, D., [2]Nikou, C., [1]LaBarca, R. S., [2]Jaramaz, B., and [1]DiGioia, A.M., III
[1]Carnegie Mellon University, USA and [2]The Western Pennsylvania Hospital, USA

1:50 p.m. Inherent Registration of Mobile 3D Fluoroscopy for Surgical Navigation
[1]Wälti, H., [2]Grützner, P.A., [3]Euler, E., and [1]Nolte, L.-P.
[1]University of Bern, SWITZERLAND, [2]University of Heidelberg, GERMANY, and [3]University of Munich, GERMANY

2:00 p.m. Deformable Registration between a Statistical Bone Density Atlas and X-Ray Images
Yao, J. and Taylor, R.
Johns Hopkins University, USA

2:10 p.m. The Iterative Sampled Image Registration Method: Direct Registration of Intraoperative 3D Points to Preoperative CT for Image Guided Surgery
[1]Amin, D.V., [1]LaBarca, R.S., [1]Kanade, T., [2]DiGioia, A.M., III, [2]Jaramaz, B., [2]Nikou, C., [2]Moody, J.E., and [2]Levison, T.J.
[1]Carnegie Mellon University, USA and [2]The Western Pennsylvania Hospital, USA

2:20 p.m. DISCUSSION

Session X – Special Poster Session Part 2

Session Chair - Joskowicz, L.

2:30 p.m. The Computer Navigation System in TKA - Three Years Experience with Orthopilot
Confalonieri, N., Cerea, P., Motavalli, K., and Manzotti, A.
Istituti Clinici di Perfezionamento (CTO), ITALY

2:35 p.m. Experience with a Hybrid CT-Free Navigation System for Acetabular Cup Placement in Clinical Routine
[1]Grützner, P.A., [1]Vock, B., [2]Langlotz, U., [2]Wälti, H., [2]Rose, E., [1]Korber, J., [2]Nolte, L.-P., and [1]Wentzensen, A.
[1]University of Heidelberg, GERMANY and [2]University of Bern, SWITZERLAND

2:40 p.m. Computer Assisted Hip-Cup Placement versus Conventional Free-Hand Hip-Cup Placement
[1]Stockheim, M., [2]Michaelis, U., [2]Krödel, A., [3]Steffen, R., [3]Eppe, [1]Kuehle, P., [1]Rubenthaler, F., [1]Wiese, M., and [1]Haaker, R.
[1]Ruhr-University Bochum, GERMANY, [2]Alfried Krupp Hospital, GERMANY, and [3]Marien-Hospital, GERMANY

2:45 p.m. Combined C-Arm and Laser Projection Prototype Device
[1]Chen, E., [1]Ewerbeck, V., and [2]Kikinis, R.
[1]University of Heidelberg, GERMANY and [2]Harvard Medical School, USA

2:50 p.m. 2 Years Follow Up - A Prospective Randomized Controlled Trial of a Computer Navigated Placement of Two Different Uncemented Hip Cups
[1]Wiese, M., [1]Rubenthaler, F., [1]Warkentin, H., [2]Langlotz U., and [3]Bernsmann, K.
[1]St. Josef Hospital, GERMANY, [2]Medivision, SWITZERLAND, and [3]Girardet Clinic Essen, GERMANY

2:55 p.m. Poster Session and Exhibit Inspection

3:30 p.m. Workshop Series I (Workshops 1, 3, 5, 7, 9, 11)

3:30 p.m. Rotation D

4:05 p.m. Rotation E

4:40 p.m. Rotation F

5:15 p.m. General Assembly of CAOS-International

8:00 p.m. - 11:00 p.m. Conference Banquet at Palace of the Governors

Saturday, June 22, 2002

7:00 a.m. Registration and Continental Breakfast

Session XI – THA

Session Chairs - Bauer, A. and Jaramaz, B.

8:00 a.m. Non CT-Based Total Hip Replacement System: Accuracy and Reproducibility of Target Leg Length and Femoral Anteversion
Croitoru, H., Tate, P.M., Fu, L., and Sati, M.
Cedara Software Corp., CANADA

8:10 a.m. A Hybrid CT-Free Navigation System for Total Hip Arthroplasty
[1]Zheng, G., [1]Marx, A., [1]Langlotz, U., [2]Widmer, K.H., [1]Nolte, M., [3]Bernsmann, K., [1]Buttaro, M., and [1]Nolte, L.-P.
[1]University of Bern, SWITZERLAND, [2]Kantonsspital Bruderholz, SWITZERLAND, and [3]Giradet Clinic, GERMANY

8:20 a.m. Primary Rotational Stability of Hip Endoprosthesis Stems after Manual and Robot Assisted Surgery
Prymka, M., Petersen, W., Vogiatzis, M., and Hassenpflug, J.
University of Kiel, GERMANY

8:30 a.m. DISCUSSION

8:40 a.m. A Computer Guidance System for Preoperative Planning and Intraoperative Placement of the Femoral Component during Total Hip Replacement Surgery
[1]Kubiak-Langer, M., [1]Langlotz, F., [1]Bächler, R., [2]Richolt, J., [1]Nolte, L.-P., and [2]Kerschbaumer, F.
[1]University of Bern, SWITZERLAND
and [2]Orthopaedic University Clinic Friedrichsheim, GERMANY

8:50 a.m. MINARO - A New Approach for Minimal Invasive Total Hip Revision Surgery
Radermacher, K., Ohnsorge, J., Dela Fuente, M., Schkommodau, E., and Wirtz, D.C.
University Clinic Aachen, GERMANY

9:00 a.m. Mini-Incision Technique utilizing Surgical Navigation Tools for Total Hip Arthroplasty
[1]DiGioia, A.M., III, [2]Plakseychuk, A., [1]Jaramaz, B., [1]Levison, T.J., and [1]Moody, J.E.
[1]The Western Pennsylvania Hospital, USA and [2]University of Pittsburgh, USA

9:10 a.m. DISCUSSION

Session XII – Imaging

Session Chairs - Krettek, C. and Székely, G.

9:20 a.m. Direct 3D Navigation with an Isocentric Mobile C-Arm
Mitschke, M. and Ritter, D.
Siemens Medical Solutions, GERMANY

9:30 a.m. Adapting the C-Arm Fluoroscope for Image Guided Orthopaedic Surgery
[1,3]Suhm, N., [2]Müller, P., [1]Koller, S., [1]Schmucki, D., [2]Bopp, U., [3]Jacob, A.L., [3]Messmer, P., and [3]Regazzoni, P.
[1]AO Development Institute, SWITZERLAND, [2]University of Applied Sciences, SWITZERLAND, and [3]University Hospital of Basel, SWITZERLAND

9:40 a.m. Real ISO- C3D- C-Arm based Navigation-Comparison to CT-Based and 2D- C-Arm based Navigation for Pelvic Screw Fixation
[1]König, B., [2]Wälti, H., [1]Schäffler, A., [1]Stöckle, U., [1]Haas, N.P., and [2]Nolte, L.-P.
[1]Charité Berlin, GERMANY and [2]University of Bern, SWITZERLAND

9:50 a.m. 2.5 D Ultrasound Measurement of the Geometry of the Lower Extremities
Keppler, P., Gebhard, F., and Kinzl, L.
University of Ulm, GERMANY

10:00 a.m. First Clinical Experience in Inherent Registration Techniques with Mobile Three-Dimensional (3D) Fluoroscopy for Matching Free Navigation - Preliminary Report of a New Method for Intraoperative Navigation
[1]Grützner, P.A., [1]Vock, B., [1]Holz, F., [2]Wälti, H., [2]Nolte, L.-P., [3]Euler, E., and [1]Wentzensen, A.
[1]University of Heidelberg, GERMANY, [2]University of Bern, SWITZERLAND, and [3]University of Munich, GERMANY

10:10 a.m. DISCUSSION

10:20 a.m. Poster Session and Exhibit Inspection

10:50 a.m. Workshop Series II (Workshops 2, 4, 6, 8, 10, 12)

10:50 a.m. Rotation A

11:25 a.m. Rotation B

12:00 p.m. Rotation C

12:30 p.m. Poster Session and Exhibit Inspection (Box Lunch)

1:30 p.m. Rotation D

2:05 p.m. Rotation E

2:40 p.m. Rotation F

3:15 p.m. Conference Adjourns

4:45 p.m. Busses Depart for Movie Studio Ranch

5:15 p.m. Movie Studio Ranch BBQ and Awards Ceremony

8:30 p.m. Busses Return to all Conference Hotels

Sunday, June 23, 2002

8:00 a.m. Registration and Continental Breakfast

9:00 a.m. Surgical Academy

12:00 p.m. Surgical Academy Adjourns

POSTERS

TKA

The Computer Navigation System in TKA - Three Years Experience with Orthopilot
Confalonieri, N., Cerea, P., Motavalli, K., and Manzotti, A.
Istituti Clinici di Perfezionamento (CTO), ITALY

Dynamic Measurement of the Coronal Femorotibial Angle by Computer Assisted Total Knee Arthroplasty Implantation
Jenny, J.-Y. and Boeri, C.
Center for Orthopaedic and Trauma Surgery of Strasbourg, FRANCE

Contribution of Computer Navigation in the Evaluation of Femoral Rotation during Total Knee Replacement
[1]Saragaglia, D., [1]Chaussard, C., [2]Liss, P., [1]Pichon, H., [1]Berne, D., and [1]Chaker, M.
[1]CHU de Grenoble, FRANCE, and [2]Hôpital de Voiron, FRANCE

Computer Assisted Implantation of Total Knee Arthroplasty - First Experiences in 50 Implantations using the SurgiGATE-KneeTKA System
[1]Wendl, K., [1]Grützner P.A., [2]Kunz, M., [2]Nolte, L.-P., [1]Vock, B., and [1]Wentzensen, A.
[1]University of Heidelberg, GERMANY and [2]University of Bern, SWITZERLAND

The Accuracy of Computed Tomography-Based Image-Guided Knee Replacement
Nabeyama, R., Matsuda, S., Miura, H., Mawatari, T., Tanaka, K., and Iwamoto, Y.
Kyushu University, JAPAN

CT-Based Navigation System for Total Knee Replacement - A Pilot Study
Nizard, R., Vangaver, E., Dekeuver, P., and Sedel, L.
Lariboisiere Hospital, FRANCE

Navigation in Knee Arthroplasty without Rigid-Body at the Iliac Crest - A Prospective Comparative Study using Conventional and Computer Aided Instrumentation
Clemens, U., Miehlke, R.K., and Bause, L.
St. Josef Stift, GERMANY

Precision Measurement of the Navigated, Reconstructed, Mechanical Axis on Implantine a Total Knee Prosthesis - Description of Method and Results
Ritschl, P., Fuiko, R., and Zettl, R.
Orthopadisches Krankenhaus Gersthof, AUSTRIA

A Three-Dimensional Evaluation for Positioning of Total Knee Arthroplasty and its Application for Osteotomy Control by a System of Three-Dimensional Leg Alignment Assessment with Digital X-Ray
[1]Koga, Y., [2]Sato, T., [1]Nishino, K., and [3]Ogura, H.
[1]Niigata Kobari Hospital, JAPAN, [2]Niigata University, JAPAN, and [3]Niigata TechnoWing, Co., Ltd., JAPAN

Applications of Surgical Navigation to Primary Total Knee Arthroplasty
[1,2,3]Murphy, S., [1,3]Gobezie, R., [4]Lyons, C., [4]Harber, C., and [5]Goodchild, G.
[1]Beth Israel-Deaconess Medical Center, USA, [2]New England Baptist Hospital, USA, [3]Harvard Medical School, USA, [4]Richards, Smith and Nephew Surgical Navigation, USA, and [5]Medtronics Surgical Navigation Technology, USA

A Step to Modularity: A New Non-Image Guided Application for Navigated Total Knee Replacement (TKR) with the Navitrack™ System: First Clinical Experience
Mattes, Th. and Puhl, W.
Orthopedic University Hospital, GERMANY

The Bilateral Symmetry of the Individual Knees
[1]Pashmineh-Azar, A., [2]Niess, C., [1]Schnabel, M., [1]Junge, A., and [1]Gotzen, L.
[1]Phillips-University of Marburg, GERMANY and [2]Johann Wolfgang Goethe-University, GERMANY

Total Knee Replacement - Standard Surgical Technique vs. Computer Assisted Approach
[1]deSteiger, R., [2]Swoboda, B., [3]Westphal, C., and [4]Slomczykowski, M.
[1]Royal Melbourne Hospital, AUSTRALIA, [2]Waldkrakenhaus St. Marien, GERMANY, [3]Klinikum Neustadt, GERMANY, and [4]DePuy International, UNITED KINGDOM

A Planning System for Active Constraint Robot Knee Surgery
[1]Harris, S., [1]Rodriguez y Baena, F., [1]Jakopec, M., [1]Gomes, P., [2]Cobb, J., and [1]Davies, B.
[1]Imperial College of Science, Technology and Medicine, UNITED KINGDOM and [2]University College London Hospitals Trust, UNITED KINGDOM

Early Experience with a CT based Image Guided System for Total Knee Arthroplasty
Swank, M.L.
Cincinnati Orthopaedic Research Institute, USA

Computer Navigation for Unicompartmental Knee Arthroplasty
[1]Tatsumi, I., [1]Nakajima, S., [2]Ikebuchi, T., [1]Kadoya, Y., [1]Kobayashi, A., and [1]Yamano, Y.
[1]Osaka City University, JAPAN and [2]Osaka Pref. Rehabilitation Hospital, JAPAN

CAS in the TKR using the Fluoroscopic Based Ion-Station - The First Results of a Prospective Study
Kettrukat, M., Hagena, F.-W., Christ, R.-M., and Hackbarth, M.
Auguste-Viktoria-Klinik Bad Oeynhausen, GERMANY

The Rationale for and Initial Experience with a Knee Suite of Computer Assisted Surgical Applications
[1]Stulberg, S.D., [2]Eichhorn, J., [3]Saragaglia, D., and [4]Jenny, J.-Y.
[1]Northwestern University School of Medicine, USA, [2]Orthopädisch-Sporttraumatologische Praxis, GERMANY, [3]Grenoble University, FRANCE, and [4]Centre de Traumatologie et d'Orthopedie, FRANCE

A Generalized Model for Predicting Force and Accuracy in Bone Milling with Application to Computer-Assisted Knee Arthroplasty
[1]Plaskos, C., [1]Hodgson, A.J., and [2]Masri, B.A.
[1]University of British Columbia, CANADA and [2]Vancouver General Hospital, CANADA

THA

First Italian Clinical Experience with Robot-Assisted Total Hip Replacement
[1]Pipino, F., [1]Franchin, F., [1]Sanguineti, F., [1]Grandizio, M., and [2]Fadda, M.
[1]Genoa University, ITALY and [2]URS Ortho, GERMANY

2 Years Follow Up - A Prospective Randomized Controlled Trial of a Computer Navigated Placement of Two Different Uncemented Hip Cups
[1]Wiese, M., [1]Rubenthaler, F., [1]Warkentin, H., [2]Langlotz U., and [3]Bernsmann, K.
[1]St. Josef Hospital, GERMANY, [2]Medivision, SWITZERLAND, and [3]Girardet Clinic Essen, GERMANY

Optimal Range of Motion in Total Hip Arthroplasty Requires Compliant Combinations of Cup and Stem Positioning during Surgery - Recommendations for Computer-Assisted Navigation
Widmer, K.-H.
Kantonsspital Bruderholz, SWITZERLAND

New Application in Robot-Assisted Surgery: Primary Considerations
[1]Bauer, A., [2]Torres Sánchez, R., and [2]Fernández Meroño, J.M.
[1]Marbella High Care, SPAIN and [2]Polytechnic University of Cartagena, SPAIN

Applications of Surgical Navigation to Primary Total Hip Arthroplasty
Murphy, S., Gobezie, R., and Deshmukh, R.
Beth Israel-Deaconess Medical Center, USA, New England Baptist Bone and Joint Institute, USA
and Harvard Medical School, USA

Experience with a Hybrid CT-Free Navigation System for Acetabular Cup Placement in Clinical Routine
[1]Grützner, P.A., [1]Vock, B., [2]Langlotz, U., [2]Wälti, H., [2]Rose, E., [1]Korber, J., [2]Nolte, L.-P., and [1]Wentzensen, A.
[1]University of Heidelberg, GERMANY and [2]University of Bern, SWITZERLAND

XALIGN: Determining Acetabular Cup Position Following Total Hip Replacement - A Patient Data Study
[1]Jaramaz, B., [2]Cassenti, L., [2]LaRose, D., [2]Kanade, T., [1]Moody, J., [1]DiGioia, A.M., III, [1]Levison, T.,
and [2]Dostmohamed, H.
The Western Pennsylvania Hospital, USA and [2]Carnegie Mellon University, USA

Effects of Large-Diameter Femoral Implant Heads on Functional Range of Motion after THR
Nikou, C., Jaramaz, B., and DiGioia, A.M., III
The Western Pennsylvania Hospital, USA

Computer Assisted Hip-Cup Placement versus Conventional Free-Hand Hip-Cup Placement
[1]Stockheim, M., [2]Michaelis, U., [2]Krödel, A., [3]Steffen, R., [3]Eppe, [1]Kuehle, P., [1]Rubenthaler, F., [1]Wiese, M.,
and [1]Haaker, R.
[1]Ruhr-University Bochum, GERMANY, [2]Alfried Krupp Hospital, GERMANY, and [3]Marien-Hospital, GERMANY

PACS-Based X-Ray Planning System for Hip Replacement
Croitoru, H., Tate, P.M., Fu, L., and Sati, M.
Cedara Software Corp., CANADA

"Pinless" System for Robodoc
[1]Barger, W.L., [2]Sahay, A., [2]Cohan, S., and [2]Mittlestadt, B.
[1]Sutter General Hospital, USA and [2]Integrated Surgical Systems, Inc., USA

Spine

The Role of CAOS in the Training of Junior Orthopaedic Surgeons: Pedicle Screw Placement in Porcine Lumbar Spines
[1]Kurta, I.C., [2]Richards, P.J., [1]Dove, M., [1]Jasani, V., [1]Wynn Jones, C.H., [1]Rahmatalla, A., [3]MacKenzie, G.,
and [1,4]Dove, J.
[1]City General Hospital, UNITED KINGDOM, [2]North Staffordshire NHS Trust, UNITED KINGDOM,
[3]Keele University, UNITED KINGDOM, and [4]Stoke-on-Trent, UNITED KINGDOM

Accuracy of Traditional, CT- and C-Arm-Based Navigated Transpedicular Drilling in the Thoracic and Lumbar Spine in a Standardized in Vitro Model
Arand, M., Schempf, M., Fleiter, T., Kinzl, L., and Gebhard, F.
University of Ulm, GERMANY

Placement of Cervical Pedicle, - Lateral-Mass - and C1-C2 - Screws with Virtual Computed Fluoroscopy - A Feasibility Study
Fritsch, E.W., Gödde, S., Seil, R., Duchow, J.
University of Saarland, GERMANY

An Easy Way to Check Accuracy of Spinal Navigation
Grieshammer, Th., Geske, R., Träger, U., and Schulz, W.
Klinikum Neubrandenburg, GERMANY

Fluoroscopy-Based Navigation in the Lumbar Spine - A Preclinical Study for Pedicle Screw Insertion in Human Cadavers
Bodammer, A., König, B., Scholz, M., Kandziora, F., Schnake, K., Stöckle, U., and Haas, N.P.
Charité Berlin, GERMANY

Intraoperative Planning and Fluoroscopic Navigation of Minimal-Invasive Approach for Kyphoplasty
Ohnsorge, J.A.K., Weisskopf, M., Radermacher, K., Prescher, A., Mahnken, A., and Siebert, C.
University Clinic Aachen, GERMANY and Helmholtz-Institute for Biomedical Engineering, GERMANY

Non-Invasive MR to 3D Rotational X-Ray Registration of Vertebral Bodies
[1,2]van de Kraats, E.B., [1,2]van Walsum, Th., [1]Verlaan, J.-J., and [1,2]Niessen, W.J.
[1]University Medical Centre Utrecht, THE NETHERLANDS and [2]Image Sciences Institute, THE NETHERLANDS

Registration

The Comparison of Different Matching Typs and Validation of the Surfacematching in a CT Based Knee Navigation System
[1]Wiese, M., [1]Schmidt, K., [1]Willburger, R.E, [2]Immerz, M., [1]Seidel, K., and [1]Awakowicz, A.
[1]St. Josef Hospital, GERMANY and [2]BrainLAB, GERMANY

Comparison of Three Different Ultrasound B-Mode Calibration Methods
Kowal, J., Amstutz, C.A., and Nolte, L.-P.
University of Bern, SWITZERLAND

Ultrasonic Registration Techniques
[1,2]Ioppolo, J.L., [1]Kowal, J., and [1]Nolte, L.-P.
[1]University of Bern, SWITZERLAND and [2]University of Western Australia, AUSTRALIA

A-Mode Ultrasound based Registration in Total Hip Arthroplasty
Heger, St., Portheine, F., Ohnsorge, J., and Radermacher, K.
University Clinic Aachen, GERMANY

Minimally Invasive Registration Techniques for Surgical Navigation using Intraoperative Ultrasound
[1]Amin, D.V., [1]Kanade, T., [2]DiGioia, A.M., III, [2]Jaramaz, B., [2]Moody, J.E., [2]Nikou, C., [1]LaBarca, R.S., and [2]Levison, T.J.
[1]Carnegie Mellon University, USA and [2]The Western Pennsylvania Hospital, USA

Accuracy

Accuracy of CT-Based Acetabular Cup Planning with Respect to the Pelvic Frontal Plane
[1]Steffen, R., [1]Eppe, T., [1]Reichwein, F., and [2]Marx, A.
[1]Marienkrankenhaus Kaiserswerth, GERMANY and [2]University of Bern, SWITZERLAND

An Accuracy Assessment Framework for Orthopaedic Surgical Navigation Systems
[1]Moody, J.E., [2]LaBarca, R.S., [3]Sell, D., [1]Nikou, C., [2]Omer, A., [1]Jaramaz, B., and [1]DiGioia, A.M., III
[1]Western Pennsylvania Hospital, USA, [2]Carnegie Mellon University, USA, and [3]CASurgica, Inc., USA

Computer Assisted Fracture Reduction: A Novel Method for Analysis of Accuracy
[1]Geerling, J., 1Hüfner, T., [1]Citak, M., [1]Richter, M., [1]Gössling, T., [2]Pohlemann, T., [3]Tarte, S., and [1]Krettek, C.
[1]Hannover Medical School, GERMANY, [2]University of Saarland, GERMANY,
and [3]University of Bern, SWITZERLAND

Imaging Fluoro

Quantitative Evaluation of Intraoperative Radiation Doses in Patients using Computer-Assisted Surgery
Gebhard, F., Kraus, M., Kinzl, L., and Arand, M.
University of Ulm, GERMANY

Validation of Fluoroscopy based Navigation in the Collum Femoris
[1]Schep, N.W.L., [2]van Walsum, Th., [1]Broeders, I.A.M.J., and [1]van der Werken, Chr.
[1]University Medical Center Utrecht, THE NETHERLANDS and [2]Image Sciences Institute, THE NETHERLANDS

Robust Automatic C-Arm Calibration for Fluoroscopy-Based Navigation
Livyatan, H., Yaniv, Z., and Joskowicz, L.
Hebrew University of Jerusalem, ISRAEL

Fluoroscopy based Surgical Navigation for Guidewire Placement in Femoral Neck Fractures: A Controlled Experimental Study
[1]Beck, T., [2]Zuna, I., [1]Marazzi, C., [1]Städele, H., [1]Messmer, P., [1]Regazzoni, P., and [1,3]Suhm, N.
[1]University of Basel, SWITZERLAND and [2]German Cancer Research Center, GERMANY,
and [3]AO Development Institute, SWITZERLAND

Anatomical Registration Implementation and Results for a "Hands-On" Robotic Knee Surgery System
[1]Rodriguez y Baena, F.M., [1]Davies, B.L., [1]Jakopec, M., [1]Harris, S.J., [1]Gomes, P.S.F., and [2]Cobb, J.
[1]Imperial College, UNITED KINGDOM and [2]University College London Hospitals Trust, UNITED KINGDOM

Positioning of Sacroiliac Screws with Fluoroscopy based Navigation Technique
[1]Schep, N.W.L., [2]van den Bosch, E.W., [2]Haverlag, R., and [2]van Vugt, A.B.
[1]University Medical Center Utrecht, THE NETHERLANDS
and [2]University Hospital Rotterdam, THE NETHERLANDS

Surface/Volume Models Reconstruction of Bones for Surgical Planning
[1]Archip, N., [2]Dessenne, V., and [1]Erard, P.-J.
[1]University of Neuchâtel, SWITZERLAND and [2]Medivision/STRATEC, SWITZERLAND

Preliminary Results of a Prospective Randomized Clinical Trial: The Placement of Sacroiliac Screws with Fluoroscopy based Image Guidance versus Conventional Fluoroscopic Technique
Hinsche, A.F., Giannoudis, P.V., and Smith, R.M.
St. James's University Hospital Leeds, UNITED KINGDOM

Virtual Fluoroscopy for Screw Fixations in Pelvic Surgery
Stoeckle, U., Koenig, B., Dahne, M., and Haas, N.P.
Humboldt University Berlin, GERMANY

A Co-Registration Technique for Fluoroscopically-Guided Robotic Surgery
Prasad, S.K., Li, M., Ramey, N.A., Frassica, F.J., and Taylor, R.H.
Johns Hopkins University, USA

New Applications

Computer Assisted High Tibial Valgus Osteotomy for Treatment of Genu Varum - A Study of 19 Cases
[1]Saragaglia, D., [1]Pradel, P., [1]Chaussard, C., [2]Liss, P., [1]Pichon, H., [1]Berne, D., and [1]Chaker, M.
[1]CHU de Grenoble, FRANCE and [2]Hôpital de Voiron, FRANCE

Combined C-Arm and Laser Projection Prototype Device
[1]Chen, E., [1]Ewerbeck, V., and [2]Kikinis, R.
[1]University of Heidelberg, GERMANY and [2]Harvard Medical School, USA

A Novel Laser Guidance System to Present the Information of Navigation Directly in the Surgical Field
[1]Sugano, N., [1]Sasama, T., [1]Koyama, T., [1]Nakajima, Y., [1]Sato, Y., [1]Tamura, S., [2]Momoi, Y., [3]Fujie, M., [4]Sakuma, I., and [5]Yonenobu, K.
[1]Osaka University Medical School, JAPAN, [2]Hitachi Ltd, JAPAN, [3]Waseda University, JAPAN, [4]University of Tokyo, JAPAN, and [5]Osaka Minami National Hospital, JAPAN

Robot-Guided Long Bone Intramedullary Distal Locking: Concept and Preliminary Results
[1]Joskowicz, L., [2]Milgrom, C., [3,4]Shoham, M., [1]Yaniv, Z., and [2]Simkin, A.
[1]Hebrew University of Jerusalem, ISRAEL, [2]Hadassah University Hospital, ISRAEL, [3]Technion, ISRAEL, and [4]Masor Robotics Ltd., ISRAEL

Flouroscopy based Navigated Drilling of the Femoral Head for Avascular Necrosis: A Laboratory and Clinical Study
Duchow, J., Fritsch, E., and Seil, R.
University of Saarland, GERMANY

Use of Industrial Robots for Computer Assisted Orthopaedics Surgery - Application to the Locking of Intramedullary Nails
[1]Torres, R., [1]Aznar, M., [1]Fuentes, J.A., [2]Bauer, A., and [1]Fernández, J.M.
[1]Polytechnic University of Cartagena, SPAIN and [2]Marbella High Care Orthopaedic Clinic, SPAIN

Towards Computer Assisted Surgery in Total Shoulder Joint Replacement
[1,2]Valstar, E.R., [1]Botha, C.P., [2]Rozing, P.M., [1]Post, F.H., [1]Vossepoel, A.M., and [1]van der Helm, F.C.T.
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and [2]Leiden University Medical Center, THE NETHERLANDS

3D Simulation-Based Analysis of Changes in the Femoro-Tibial Angle and Hip-Knee-Ankle Angle due to Lower Extremity Rotation on Preoperative Radiographs and Rotational Shift in High Tibial Osteotomy
[1]Kawakami, H., [1]Sugano, N., [1]Hagio, K., [2]Yonenobu, K., [1]Ochi, T., [1]Yoshikawa, H., [3]Nagaoka, T., [4]Hattori, A., and [4]Suzuki, N.
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High Tibial Osteotomy - Use of the OrthoPilot Navigation System
Prymka, M., Petersen, W., and Hassenpflug, J.
University of Kiel, GERMANY

An Integrated Training and Monitoring Solution for CAS Systems: Design and Testing
[1]de Siebenthal, J., [2]Grützner, P.A., [3]Barea, C., and [1]Langlotz, F.
[1]University of Bern, SWITZERLAND, [2]BG Unfallklinik, GERMANY, and [3]University Hospital of Geneva, SWITZERLAND

Workspaces of the Human Knee
[1]Fuller, J.E., [2]Murphy, M.C., and [3]Brown, G.A.
[1]Schlumberger Reservoir Completions, USA, [2]Louisiana State University, USA, and [3]University of Minnesota, USA

The Multifunctional Therapy Suite in Basel: A New Approach to Elective Guided Therapy and Emergency Single Stage Diagnosis and Treatment
Beck, T.M., Messmer, P., Regazzoni, P., and Jacob, A. L.
University Hospital of Basel, SWITZERLAND

3D-Navigation with Iso-C-3D Datasets: Experimental Evaluation in Pedicle Screw and SI-Screw Placement and First Clinical Cases
Euler, E., Heining, S.M., Riquarts, C., and Mutschler, W.
University of Munich, GERMANY

Intraoperative Measurement of Torsion Angle and Leg-Length in Trauma Surgery using Iso-C-3D-Datasets
Heining, S.M., Euler, E., Wirth, S., Wassermann, S., and Mutschler, W.
University of Munich, GERMANY

A Minimally Invasive Approach to Pelvic Osteolysis
Prasad, S., Li, M., Ramey, N., Frassica, F., and Taylor, R.
Johns Hopkins University, USA

Minimally Invasive Computer-Assisted Excision of Osteoid Osteoma
Athwal, G.S., Ellis, R.E., Pichora, D.R., and Rudan, J.R.
Queen's University, CANADA

CAS Systems in Clinical Routine - Are They Usable?
[1]Zimolong, A., [1]Wu, T., [2]Zimolong, B., [3]de Siebenthal, J., and [1]Radermacher, K.
[1]University Clinic Aachen, GERMANY, [2]Ruhr-Universitat Bochum, GERMANY,
and [3]University of Bern, SWITZERLAND

New Indications for Computer Assisted Surgery: Ankle Fusion
Hüfner, T., Geerling, J., Oldag, G., Gössling, T., Richter, M., and Krettek, C.
Hannover Medical School, GERMANY

Assessment of Preoperative Computer Simulated Proximal Femoral Osteotomy in Finite Element Analysis
[1]Hung, S.S., [1]Lee, M.S., [2]Chen, W.B., and [2]Ho, S.S.
[1]Chang Gung Memorial Hospital, TAIWAN and [2]Chung Yuan University, TAIWAN

Trauma

Internal Fixation of Hip Fractures with Computer Assisted Surgery (CAS) Initial Experience
Schep, N.W.L., Verleisdonk, E.J.M., Broeders, I.A.M.J., and van der Werken, Chr.
University Medical Centre Utrecht, THE NETHERLANDS

Anterior Cruciate Ligament Reconstruction using a CAOS System: Preliminary Results
[1]Ménétrey, J., [1]Suvà, D., [1]Genoud, P., [2]Sati, M., [1]Hoffmeyer, P., and [1]Fritschy, D.
[1]University Hospital of Geneva, SWITZERLAND and [2]University of Bern, SWITZERLAND

CARED - Computer Assisted Reduction - A New Concept for Fracture Treatment
[1]Schmucki, D., [2]Messmer, P., [2]Suhm, N., and [1]Koller, S.
[1]AO Development Institute, SWITZERLAND and [2]University Hospital Basel, SWITZERLAND

Minimally Invasive Image-Guided Surgery in the Treatment of Intertrochanteric Fractures
[1]Pojedinec, J., [2]Goodchild, G., and [3]Harber, C.
[1]Private Practice, USA, [2]Medtronic, USA, and [3]Smith & Nephew, USA

Virtual Reduction of Pelvic and Acetabular Fractures
[1]Tarte, S., [1]Langlotz, F., [2]Hüfner, T., and [1]Nolte, L.-P.
[1]University of Bern, SWITZERLAND and [2]Hanover Medical School, GERMANY

Clinical Experience in ACL Reconstruction with the Ortho-Pilot System
Eichhorn, J.
Orthopädisch-Sporttraumatologische Praxis, GERMANY

A New Standard Planning for the Graft Insertion Sites in the Computer Assisted Reconstruction of the Anterior Cruciate Ligament
[1]Pashmineh-Azar, A., [2]Niess, C., [1]Junge, A., [1]Schnabel, M., and [1]Gotzen, L.
[1]Philipps-University of Marburg, GERMANY and [2]Johann Wolfgang Goethe-University, GERMANY

Computer-Aided Trauma Surgery - Preliminary Report of 25 Cases
Gautheron, T., Daaboul, K., Benjelloun, S., Alfon, J., Macey, S., Buyst, K., Rebreyend, B., Coutier, M., and Scrimgeour, K.
Centre Hospitalier Moutiers, FRANCE

Workshops:

- BrainLAB Image Guided Surgery for TKR and THR
- CT-Less TKR Application with the Navitrack-System
- GALILEO: More Accurate Bone Resections in TKR
- HipNav
- Image Guided Surgery using Fluoroscopy for TKA/THA/Trauma
- KneeNav
- OrthoPilot - CT Free TKA and Cup Navigation