

**Peer Reviewed Publications**  
**SUMMARY**

**Total publications:** 30  
**Lead or Senior author:** 14 (9, 5)  
**Co-author:** 16 (7 as second author)

**Peer Reviewed Publications**  
**LEAD AUTHOR**

- 01/2010 A novel operator-independent algorithm for cardiac output measurements based on three-dimensional transoesophageal colour Doppler echocardiography.  
**Matthews F**, Largiader T, Rhomberg P, Enseleit F, van der Loo B, Schmid E, Jenni R  
 Eur J Echocardiogr. 2010 Jan 27
- 10/2009 Patient-specific three-dimensional composite bone models for teaching and operation planning  
**Matthews F**, Messmer P, Raikov V, Wanner G, Jacob AL, Regazzoni P, Egli A  
 J Digit Imaging. 2009 Oct;22(5):473-82. Epub 2007 Sep 21.
- 12/2007 Navigating the fluoroscope's C-arm back into position: an accurate and practicable solution to cut radiation and optimize intra-operative workflow  
**Matthews F**, Hoigne FJ, Weiser M, Wanner GA, Regazzoni P, Suhm N, Messmer P  
 J Orthop Trauma. 2007 November/December;21(10):687-692
- 07/2007 Computer assisted optimization of in-hospital workflow: the logistics of 3D surgical planning  
**Matthews F**, Egli A, Jacob AL, Regazzoni P, Wohlgemuth R, Wessels G, Messmer P  
 Int J CARS. 2007 2 (Suppl 1): S427-444
- 03/2007 Protrusion of hardware impairs forearm rotation after olecranon fixation. A report of two cases.  
 J Bone Joint Surg Am. 2007 Mar;89(3):638-42  
**Matthews F**, Trentz O, Jacob AL, Kikinis R, Jupiter JB, Messmer P.
- 09/2005 Passive pneumatic stabilization device for assisting in reduction of femoral shaft fractures  
 Eur. J. Trauma 2005; 31(6):568-574  
**Matthews F**, Neuhaus V, Schmucki D, Schwyn R, Gross T, Regazzoni P, Trentz O, Messmer P
- 06/2004 Qualitätssicherung – mehr als Schlagworte (Quality Assurance – more than buzzwords)  
 SAEZ 2004;85(23):1217-1221  
**Matthews F**, Rageth L, Schöb O
- 05/2002 Die Fortsetzung der unendlichen Geschichte oder die Leistenhernie im digitalen Zeitalter (The endless story continues – or the groin hernia in the digital era)  
 MIC – Minimal Invasive Chirurgie 2002 (2), 121-126  
**Matthews F**, Schöb O
- 03/1999 Peripheral database module for clinical management and research in sleep medicine  
 Tech Health Care. 1999;7(5):331-42  
**Matthews F**, Blaser J, Russi EW, Bloch KE

**Peer Reviewed Publications**  
**SENIOR AUTHOR**

- 03/2012 The influence of involuntary facial movements on craniofacial anthropometry: a survey using a three-dimensional photographic system.  
 Lübbers HT, Medinger L, Kruse AL, Grätz KW, Obwegeser JA, **Matthews F**.  
 Br J Oral Maxillofac Surg. 2012 Mar;50(2):171-5. Epub 2011 Jan 14.
- 03/2011 Precise screw positioning at the mandibular angle: computer assisted versus template coded.  
 Lübbers HT, Kruse A, Messmer P, Grätz KW, Obwegeser JA, **Matthews F**.  
 J Craniofac Surg. 2011 Mar;22(2):620-4.

- 07/2010 Misjudgments at the mandibular angle: Freehand vs. computer-assisted screw positioning.  
Lübbers HT, Messmer P, Grätz KW, Ellis RE, **Matthews F**.  
J Craniofac Surg. 2010 Jul;21(4):1012-7. **F**
- 05/2010 Precision and Accuracy of the 3dMDface Photogrammetric System in Craniomaxillofacial Application  
Lübbers HT, Medinger L, Kruse A, Grätz KW, **Matthews F**  
J Craniofac Surg, Vol 21-3, 2010 May.
- 02/2008 Comparison of different registration methods for surgical navigation in maxillofacial surgery.  
Lübbers Th, Messmer P, Obwegeser JA, Zwahlen RA, Kikinis R, Grätz KW, **Matthews F**  
J Craniomaxillofac Surg. 2008 Feb 13 [Epub ahead of print]

### Peer Reviewed Publications CO-AUTHOR

- 11/2012 Craniofacial landmarks in young children: how reliable are measurements based on 3-dimensional imaging?  
Metzler P, Bruegger LS, Kruse Gujer AL, **Matthews F**, Zemann W, Graetz KW, Luebbers HT.  
J Craniofac Surg. 2012 Nov;23(6):1790-5
- 08/2012 The Reliability of a Three-Dimensional Photo System- (3dMDface-) Based Evaluation of the Face in Cleft Lip Infants.  
Ort R, Metzler P, Kruse AL, **Matthews F**, Zemann W, Grätz KW, Luebbers HT.  
Plast Surg Int. 2012;2012:138090
- 09/2011 Registration for computer-navigated surgery in edentulous patients: a problem-based decision concept.  
Lübbers HT, **Matthews F**, Zemann W, Grätz KW, Obwegeser JA, Bredell M.  
J Craniomaxillofac Surg. 2011 Sep;39(6):453-8. Epub 2010 Nov 26.
- 10/2011 Surgical navigation in cranio-maxillofacial surgery: an evaluation on a child with a cranio-facio-orbital tumour.  
Lübbers HT, Jacobsen C, Könu D, **Matthews F**, Grätz KW, Obwegeser JA.  
Br J Oral Maxillofac Surg. 2011 Oct;49(7):532-7. Epub 2010 Sep 15.
- 05/2011 Anatomy of impacted lower third molars evaluated by computerized tomography: is there an indication for 3-dimensional imaging?  
Lübbers HT, **Matthews F**, Damerau G, Kruse AL, Obwegeser JA, Grätz KW, Eyrich GK.  
Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2011 May;111(5):547-50. Epub 2010 Oct 16.
- 03/2011 A simple and flexible concept for computer-navigated surgery of the mandible.  
Lübbers HT, Obwegeser JA, **Matthews F**, Eyrich G, Grätz KW, Kruse A.  
J Oral Maxillofac Surg. 2011 Mar;69(3):924-30. Epub 2010 Jun 29.
- 01/2011 Surgical navigation in craniomaxillofacial surgery: expensive toy or useful tool? A classification of different indications.  
Lübbers HT, Jacobsen C, **Matthews F**, Grätz KW, Kruse A, Obwegeser JA.  
J Oral Maxillofac Surg. 2011 Jan;69(1):300-8. Epub 2010 Nov 2.
- 01/2010 Utility indices in patients with the obstructive sleep apnea syndrome.  
Schmidlin M, Fritsch K, **Matthews F**, Thurnheer R, Senn O, Bloch KE.  
Respiration. 2010;79(3):200-8. Epub 2009 May 27.
- 06/2009 Gender, age, and body surface area are the major determinants of ascending aorta dimensions in subjects with apparently normal echocardiograms.  
Biaggi P, **Matthews F**, Braun J, Rousson V, Kaufmann PA, Jenni R.  
J Am Soc Echocardiogr. 2009 Jun;22(6):720-5. Epub 2009 May 7
- 01/2009 Formation of Pseudoaneurysm after Aortic Valve Replacement without Previous Endocarditis: A Case Control Study  
Enseleit F, Gruenenfelder J, Braun J, **Matthews F**, Jenni R, van der Loo B  
Journal of Thoracic and Cardiovascular Surgery

- 10/2007 Surgery of the mitral valve, 20 year follow-up (Orig. in German)  
"Chirurgie der degenerativen Mitralsuffizienz - auch beim asymptomatischen Patienten?"  
Egloff L, **Matthews F**, Ritter M, Laske A, Kunz M, Siebenmann R  
Kardiovaskuläre Medizin 2007;10:356-365
- 03/2007 A CT- database for research, development and education: concept and potential  
J Digit Imaging. 2007 Mar;20(1):17-22.  
Messmer P, **Matthews F**, Jacob AL, Kikinis R, Regazzoni P, Noser H
- 12/2006 Image fusion for intraoperative control of axis in long bone fracture treatment  
Eur J Trauma 2006;32:555-61  
Messmer P, **Matthews F**, Wulschleger C, Hügli R, Regazzoni P, Jacob AL
- 08/2005 Novel doppler assessment of intracoronary volumetric flow reserve: validation against PET in patients with or without flow-dependent vasodilation  
J Nucl Med. 2005 Aug;46(8):1272-7  
Kaufmann PA, Namdar M, **Matthews F**, Roffi M, Aschkenasy SV, van der Loo B, Sutsch G, Luscher TF, Jenni R.
- 05/2004 A novel in vivo procedure for volumetric flow measurements  
Ultrasound Med Biol. 2004 May;30(5):633-7  
Jenni R, **Matthews F**, Aschkenasy SV, Lachat M, van Der Loo B, Oechslin E, Namdar M, Jiang Z, Kaufmann PA..
- 12/2003 Randomized short-term trial of two autoCPAP devices versus fixed continuous positive airway pressure for the treatment of sleep apnea  
Am J Respir Crit Care Med. 2003 Dec 15;168(12):1506-11. Epub 2003 Oct 02.  
Senn O, Brack T, **Matthews F**, Russi EW, Bloch KE

#### BOOK CONTRIBUTIONS

- 02/2006 Trauma Surgery: Image Guided Surgery / Navigation  
(„Unfallchirurgie: Bildgestützte Instrumentenführung / Navigation“)  
P. Messmer, A.L. Jacob, F. **Matthews**, O. Trentz  
Spitzenmedizin, die Spitze des Eisbergs, Kranich Verlag, ISBN 3-909194-30-3

#### MAGAZINE CONTRIBUTIONS

- 05/2012 Is “free” the new price point for primary care?  
Cohen M, Keckley P, **Matthews F**  
Modern Healthcare, Rx:Next, 2012-05
- 06/2006 Networked computer-assisted surgery – from plan to procedure  
(„Vernetzte computer-assistierte Chirurgie – von der Planung zur Ausführung“)  
**Matthews F**, Messmer P  
PULS, Mitarbeiter-Zeitschrift des Universitätsspitals Zürich

#### POSTER PRESENTATIONS

- 09/2007 KTI Medtech Event 2007, Bern  
Optimizing the in-hospital workflow of surgical patient care  
**Matthews F**, Messmer P
- 06/2007 94. Jahreskongress der Schweizerischen Gesellschaft für Chirurgie, 2007, Lausanne  
Fluoroscope Image Fusion for Intraoperative Control of Axis in Long Bone Fracture Treatment  
**Matthews F**, Hügli R, Jacob AL, Wulschleger Ch, Regazzoni P, Messmer P
- 09/2006 65. Jahreskongress der Schweizerischen Gesellschaft für Orthopädie, 2006, Luzern

Eine atypische Stressfraktur im Schenkelhals  
Hoigné F, **Matthews F**, Kos S, Zumstein MD

- 08/2006 KTI Medtech Event 2006, Bern  
i3DB – instrument, implant and information database  
**Matthews F**, Messmer P
- 12/2003 EuroEcho7, Seventh Annual Meeting of the Europ. Association of Echocardiography, 2003, Barcelona  
In vivo validation of velocity profiles in coronary arteries – the shape factor is a variable,  
**Matthews F**, Aschkenasy SV, Roffi M, Kaufmann PA, Namdar M, Oechslin E, Jenni R
- 04/2002 Gemeinsame Jahresversammlung der Schweizerischen Gesellschaft für Pneumologie und der Schweiz.  
Gesellschaft für Thoraxchirurgie, Bern  
„Bronchobiliäre Fistel nach erweiterter Whipple-Operation“  
**Matthews F**, Schöb O

#### PRESENTATIONS AT CONFERENCES

- 06/2007 CARS 2007, Computer Assisted Radiology and Surgery, 2007, Berlin  
Computer assisted optimization of in-hospital workflow: the logistics of 3D surgical planning  
**Matthews F**, Jacob AL, Regazzoni P, Messmer P, Wohlgenuth R, Wessels G
- 11/2005 AQC-Tagung 2005 (Arbeitsgemeinschaft für Qualitätssicherung in der Chirurgie)  
„Objektivität, Validität und Reliabilität – Entwicklung der AQC Datenlage“ (Closing presentation)  
**Matthews F**
- 01/2005 2nd Annual Meeting of the Swiss Medical Decision Making Society, Thun  
AQC – Swiss Working Groups on Quality Assurance  
**Matthews F**, Rageth L, Schöb O
- 11/2004 AQC-Tagung 2004 (Arbeitsgemeinschaft für Qualitätssicherung in der Chirurgie)  
Was verstehen Sie unter Qualitätssicherung? (Lead presentation)  
**Matthews F**
- 06/2004 Gemeinsame Jahrestagung der Schweiz. Gesellschaften für Kardiologie, Hypertonie und Angiologie,  
SGK 2004, Basel  
The coronary velocity profile: parabolic?  
**Matthews F**, Aschkenasy SV, Roffi M, Kaufmann PA, Namdar M, Oechslin E, Jenni R
- 11/2002 AQC-Tagung 2002 (Arbeitsgemeinschaft für Qualitätssicherung in der Chirurgie)  
AQC seit 1998 – Ergebnisse und Datenanalysen  
**Matthews F**
- 06/2002 X. Internat. Congress, European Association of Endoscopic Surgery, Barcelona  
Are we moving toward endoscopic surgery as standard for gastric neoplasias? (Video & presentation)  
**Matthews F**, Schöb O
- 05/2002 119. Kongress der Deutschen Gesellschaft für Chirurgie, Berlin  
Reicht das Teachingvolumen zum Bestandeserhalt?  
**Matthews F**, Frisse D, Schöb O
- 05/2000 Jahrestagung der Schweiz. Gesellschaft für Medizinische Informatik, Lausanne  
Database migration, opportunities and challenges  
**Matthews F**, Grimm J, Blaser J (abstract published)