

## CHRISTOPHE MOSER

Associate Professor of MicroEngineering  
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Christophe Moser is currently associate professor of Optics in the Microengineering department at EPFL. He obtained his PhD at the California Institute of Technology in optical information processing in 2000. He co-founded and was the CEO of Ondax Inc, Monrovia California for 10 years before joining EPFL in 2010. His interests are analog and digital holography for imaging, ultra compact endoscopy through multimode fibers, retinal imaging and 3D printing. He co-founded Composyt light lab in the field of head worn displays in 2014 (acquired by Intel Corporation in 2015). He is the author and co-author of 36 patents.

### EDUCATION:

1997-2000	PhD in EE, California Institute of Technology, Pasadena, CA, U.S.A.
1996-97	Masters in EE, California Institute of Technology, Pasadena, CA, U.S.A.
1988-93	Bachelor in Physics, Ecole Polytechnique Fédérale de Lausanne, Switzerland.

### PROFESSIONAL POSITIONS:

2016-pres.	Director BM building, STI, EPFL.
2016-pres.	Responsible for Optics Master in section Microtechnique.
2017-pres.	Committee member for Innogrant EPFL.
2015-present	Consultant for Intel Lausanne.
2014-pres.	Co-founder, Composyt light labs (now Intel Lausanne).
2010-pres.	Director Laboratory of Applied Photonics Devices, EPFL.
2000-2010	CEO, Co-founder, ONDAX, Inc., Monrovia, CA, U.S.A.
1995-2000	Doctoral Student, Teaching Assistant, CALTECH, U.S.A.
1993-1995	Project Manager, TESA S.A (now Hexagon Metrology), Switzerland.

### GRANTS AND FUNDING:

Since 2010	EPFL/LAPD Principal investigator DARPA, SNF, CTI, Nano-Tera and various industry mandates.
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2000-2008      Raised four rounds of equity financing totaling \$15 M. for Ondax, Inc. between Venture Capitalists, Individual Investors and Corporate.  
Raised \$2M. in growth debt financing.

2004-08      Principal Investigator NSF SBIR phase I, II grants: \$ 1.5 M.

#### ADDITIONAL ACTIVITIES:

Consultant for Intel Corporation.

Member of the U.S National Science Foundation Corporate Alliance.

Member SPIE senior committee.

Board member SSOM (Swiss Society of Optical Microscopy, <http://ssom.ch>)

Board member Swissphotonics (<http://www.swissphotonics.net/home.html>)

#### AWARDS:

2011      Senior member of SPIE Society.

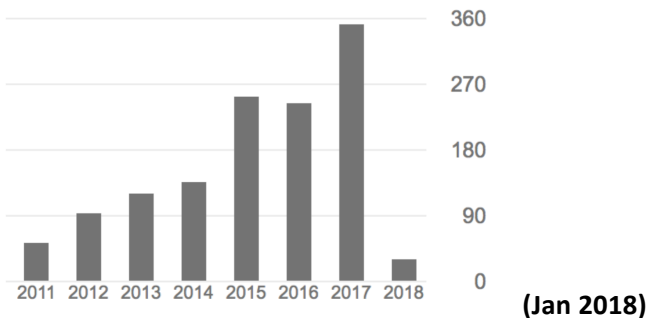
2007      U.S. National Science Foundation Outstanding Entrepreneurship award.

2003      Best presentation Photorefractive Conference award.

1996      Fellowship from the Swiss Academy of Engineering Science SATW.

1995      Swiss Top ten most innovative industrial product award.

	All	Since 2013
Citations	1581	1144
h-index	21	16
i10-index	47	29



#### Peer reviewed Publications, proceedings and patents:

1. Delrot P., Loterie D., Psaltis D., Moser C., *Single-photon three-dimensional microfabrication through a multimode optical fiber*, Optics Express, Vol. 26, Issue 2, pp.1766-1778, 2018.
2. Laforest T., Carpentras D., Kunzi M., Kowalczyk L., Behar-Cohen F., Moser C., *A new microscopy for imaging retinal cells*, arXiv:1712.08472.

3. Rostykus M., Soulez F., Unser M., Moser C., *Compact in-line lensfree digital holographic microscope*, *Methods*, 2017.
4. Chinello E., Modestino M. A., Coulot L., Ackermann M., Gerlich F., Psaltis D., Moser C., *A 25.1% efficient stand-alone solar chloralkali generator employing a microtracking solar concentrator*, *Global Challenges*, 1700095, 2017.
5. Rostykus M., Moser C., *Compact lensless off-axis transmission digital holographic microscope*, *Optics Express*, Vol. 25, Issue 14, pp.16652-16659, 2017.
6. Carpentras D., Moser C., *See-through ophthalmoscope for retinal imaging*, *J. Biomed. Opt.* 22(5), 056006, 2017.
7. Conkey D.B., Kakkava E., Lanvin T., Loterie D., Stasio N., Morales-Delgado E., Moser C., Psaltis D., *High power, ultrashort pulse control through a multi-core fiber for ablation*, *Optics Express*, Vol. 25, Issue 10, pp.11491-11502, 2017.
8. Loterie D., Psaltis D., Moser C., *Bend translation in multimode fiber imaging*, *Optics Express*, Vol. 25, Issue 6, pp.6263-6273, 2017.
9. Morales-Delgado E. E., Urio L., Conkey D. B., Stasio N., Psaltis D., Moser C., *Three-dimensional microfabrication through a multimode optical fiber*, *Optics Express*, Vol. 25, Issue 6, pp.7031-7045, 2017.
10. Rostykus M., Soulez F., Unser M., Moser C., *Compact lensless phase imager*, *Optics Express*, Vol. 25, Issue 4, pp.4438-4445, 2017.
11. Nardin G., Colomb T., Emery Y., Moser C., *Versatile spectral modulation of a broadband source for digital holographic microscopy*, *Optics Express*, Vol. 24, Issue 24, pp.27791-27804, 2016.
12. Stasio N., Moser C., Psaltis D., *Calibration-free imaging through a multicore fiber using speckle scanning microscopy*, *Optics Letters*, Issue 13, pp.3078-3081, 2016.
13. Schüttauf J.-W., Modestino A. M., Chinello E., Lambelet D., Delfino A., Dominé D., Faes A., Despeisse M., Bailat J., Psaltis D., Moser C., Baillif C., *Solar-to-hydrogen production at 14.2% efficiency with silicon photovoltaics and earth abundant electrocatalysts*, *Journal of the Electrochemical Society*, in Press, 2016.
14. Delrot P., Modestino A. M., Gallaire F., Psaltis D., Moser C., *Inkjet printing of viscous monodisperse microdroplets by laser-induced flow focusing*, *Phys. Rev. Applied* 6, 024003, 2016.
15. Conkey B. D., Stasio N., Morales-Delgado E. E., Romito M., Moser C., Psaltis D., *Lensless two-photon imaging through a multicore fiber with coherence-gated digital phase conjugation*, *J. Biomed. Opt.*, Vol. 21, Issue 4, 045002, 2016.
16. Ives M., Autry T. M., Cundiff S. T., Nardin G., *Direct imaging of surface plasmon polariton dispersion in gold and silver thin films*, *JOSA B*, Vol. 33, Issue 7, pp. C17-C21, 2016.
17. Schmockler A., Khoushabi A., Frauchiger A. D., Gantenbein B., Schizas C., Moser C., Bourban P., Pioletti D., *A photopolymerized composite hydrogel and surgical implanting tool for a nucleus pulposus replacement*, *Biomaterials*, 88, 110-119, 2016.
18. Nardin G., *Multidimensional coherent optical spectroscopy of semiconductor nanostructures: a review*, *Semicond. Sci. and Technol.*, 31, 023001 (18pp), 2016.
19. Psaltis, D; Moser, C, *Imaging with multimode fibers*, *Optics & Photonics*, 1047-6938/16/01/24/8, 2016. (or PDF)

20. Schmocker A., Khoushabi A., Schizas C., Bourban P., Pioletti D., Moser C., *Miniature probe for the delivery and monitoring of a photopolymerizable material*, J. Biomed. Opt., 0001, 20(12),127001, 2015.
21. Morales-Delgado E. E., Psaltis D., Moser C., Two-photon imaging through a multimode fiber, Optics Express, Vol. 23, Issue 25, pp. 32158-32170, 2015.
22. Stasio N., Conkey D. B., Moser C., Psaltis D., Light control in a multimode fiber using the memory effect, Optics Express, Vol. 23, Issue 23, pp. 30532-30544, 2015.
23. Stasio N., Shibukawa A., Papadopoulos I. N., Farahi S., Simandoux O., Huignard J.-P., Bossy E., Moser C., Psaltis D., Towards new applications using capillary waveguides, Biomedical Optics Express, Vol. 6, Issue 12, pp. 4619-4631, 2015.
24. Laporte G. P. J., Stasio N., Moser C., Psaltis D., Enhanced resolution in a multimode fiber imaging system, Optics Express, Vol. 23, Issue 21, pp. 27484-27493, 2015.
25. Loterie D., Goorden A. S., Psaltis D., Moser C., Confocal microscopy through a multimode fiber using optical correlation, Optics Letters, Vol. 40, Issue 24, pp. 5754-5757, 2015.
26. Schmocker A., Khoushabi A., Schizas C., Bourban P.E., Pioletti D., Moser C. Miniature probe for the delivery and monitoring of a photopolymerizable material, J. Biomed Opt, 20 (12), 2015.
27. Modestino A. M., Dumortier M., Hashemi H. M. S., Haussener S., Moser C., Psaltis D., Vapor-fed microfluidic hydrogen generator, Lab Chip, 2015.
28. Loterie D., Farahi S. Papadopoulos I., Goy A., Psaltis D., Moser C., Digital confocal microscopy through a multimode fiber, Opt. Exp. 23 (18), 2015.
29. Simandoux S., Stasio N., Gateau J., Huignard J.-P., Moser C., Psaltis D., Bossy E., Optical-resolution photoacoustic imaging through thick tissue with a thin capillary as a dual optical-in acoustic-out waveguide, Appl. Phys. Lett. 106, 094102 (2015).
30. Morales-Delgado E. E., Farahi S., Papadopoulos N. I., Psaltis D., Moser C., Delivery of focused short pulses through a multimode fiber, Optics Express, Vol. 23, Issue 7, pp. 9109-9120, 2015.
31. Zagolla V., Dominé D., Tremblay E., Moser C., Self-tracking solar concentrator with an acceptance angle of 32°, Optics Express, Vol. 22, Issue S7, pp. A1880-A1894, 2014.
32. Rodriguez C., Modestino A. M., Psaltis D., Moser C., Design and cost considerations for practical solar-hydrogen generators, Energy Environ. Sci., 2014.
33. Monemhagdoust Z., Montfort F., Emery Y., Depeursinge C., Moser C., Off-axis digital holographic camera for quantitative phase microscopy, Biomed. Opt. Express, Vol. 5, Issue 6, pp. 1721-1730, 2014.
34. Zagolla V., Tremblay E., Moser C., Proof of principle demonstration of a self-tracking concentrator, Optics Express, Vol. 22, Issue S2, pp. A498-A510, 2014.
35. Schmocker A., Khoushabi A., Schizas C., Bourban P., Pioletti D., Moser C., Photopolymerizable hydrogels for implants: Monte-Carlo modeling and experimental in vitro validation, J. Biomed. Opt., Vol. 19, Issue. 3, pp. 035004-035011, 2014.
36. Farahi S., Ziegler D., Papadopoulos I., Psaltis D., Moser C., Dynamic bending compensation while focusing through a multimode fiber, Optics Express, Vol. 21, Issue 19, pp. 22504-22514, 2013.
37. Papadopoulos I., Farahi S., Moser C., Psaltis D., Increasing the imaging capabilities of multimode fibers by exploiting the properties of highly scattering media, Opt. Lett, Vol. 38, No. 15, pp. 2776-2778, 2013.
38. Papadopoulos I., Simandoux O., Farahi S., Huignard J.-P., Bossy E., Psaltis D., Moser C., Optical

resolution photoacoustic microscopy by use of a multimode fiber, *Appl. Phys. Lett.*, Vol. 102, Issue 21, pp. 211106, 2013.

39. Monemhagdoust, F. Montfort, E. Cuhe, Y. Emery, C. Depeursinge and C. Moser, Full field vertical scanning in short coherence digital holographic microscope, *Opt. Express* 21(10), 12643-12650, 2013.
40. I. Papadopoulos, S. Farahi, C. Moser and D. Psaltis, High-resolution, lensless endoscope based on digital scanning through a multimode optical fiber, *Biomed. Opt. Express*, 4(2): 260-270, 2013.
41. Papadopoulos I., Farahi, S., Moser C., Psaltis D., Focusing and scanning light through a multimode optical fiber using digital phase conjugation, *Optics Express*, Vol. 20, Issue 10, pp. 10583-10590, 2012.
42. Zagolla V., Tremblay E., Moser C., "Light induced fluidic waveguide coupling", accepted by *optics Express*, 2012
43. Tremblay E., Loterie D., Moser C., "Thermal phase change actuator for self-tracking solar concentration", submitted to *Optics Express*, Aug 2012.
44. Monemhagdoust Z., Montfort F., Emery Y., Depeursinge C., Moser C., "Multi-wavelength full field imaging in low coherence digital holographic microscopy", *Optics Express*, Vol. 19 ,15, pp. 24005-24022, 2011.
45. Havermeyer F., Ho L., Moser C., Compact single mode tunable laser using a digital micromirror device, *optics Express* Vol. 19, 15, 14642-14652, 2011.
46. Moser C., Havermeyer F., Ultra-narrowband tunable laserline notch filter, *Appl. Phys. B*, 95 (3), pp 597-601, 2009.
47. Hieta T., Vainio M., Moser C., Ikonen E., External-cavity lasers based on a volume holographic grating at normal incidence for spectroscopy in the visible range, *Opt. Comm.* 282 (15), pp 3119-3123, 2009.
48. Moser C. ,Ho L., Havermeyer F., Self-aligned Non-dispersive External Cavity Tunable Laser, 16 (21), 16691-16696 *Optics Express*, 2008.
49. Moser C. Maye E., Havermeyer F, Ho L. Fabrication and applications of volume holographic optical filters in glass, *J. Phys. D: Appl. Phys.*, 41, 2008.
50. Steckman, GJ, Moser C. et al. Volume holographic grating wavelength stabilized laser diodes, *IEEE J. Of Selected Topics in Quantum Electronics*, (13), 672-678, 2007.
51. Hsieh, HT; Liu, WH; Havermeyer, F, Moser C., Psaltis D. Beam-width-dependent filtering properties of strong volume holographic gratings ,*App. Opt.* 45 (16), 3774-3780, 2006.
52. Blais-Ouellette S, Artigau, T, Havermeyer F, Moser C. Multi-notch holographic filters for atmospheric lines suppression, *Optical Fabrication, metrology and material advancements for telescopes*, 5494, 554-561, 2004.
53. Havermeyer, F; Liu, WH; Moser, C, et al. Volume holographic grating-based continuously tunable optical filter, *Opt. Eng.* 43 (9), 2017-2021, 2004.
54. Moser, C; Liu, WH; Fainman, Y, et al. Folded shift multiplexing, *Opt. Lett.* 28 (11), 899-901, 2003.
55. Moser C., Psaltis D. Holographic Memory With Localized Recording, *App. Opt.* 40 (23) , 3909-3914, 2001.
56. Moser C, Schupp B, Psaltis D. Localized holographic recording in doubly doped lithium niobate *Opt. Lett.* 25: (3) 162-164, 2000.

57. Turukhin AV, Gorokhovskiy AA, Moser C, Psaltis D. Spectral hole burning in naphthalocyanines derivatives in the region 800 nm for holographic storage applications, *J. Lumin.* 86: (3-4) 399-405, 2000.
58. Moser C, Kampmeier J, McDonnell P, et al. Feasibility of intraoperative corneal topography monitoring during photorefractive keratectomy, *J. Refract. Surg.* 16: (2) 148-154, 2000.
59. Moser C., Maravic I., Schupp B., Adibi A, Psaltis D, Diffraction efficiency of localized holograms in doubly doped LiNbO<sub>3</sub> crystals, *Opt. Lett.* 25: (17), 1243-1245, 2000.

## BOOKS

Buse K, Havermeier F, Liu W., Moser C. and Psaltis D. Holographic Filters , Book Chapter Photorefractive Materials and their Applications, Springer Series in Optical Sciences, 2005.

## ARTICLES MAGAZINES

Psaltis D. , Moser C, Imaging with Multimode fibers, *OPN*, Jan 2016.

Moser, C; Steckman, G, Filters to Bragg about , *Photonics Spectra*, 39 (6), 82-85, 2005.

## PROCEEDINGS ARTICLES

1. Laforest T., Carpentras D., Künzi M., Kowalczyk L., Behar-Cohen F., Moser C., In vivo neuronal retinal imaging at cellular level, *Proc. SPIE, Ophthalmic technologies XXVIII*, January 27- February 1, 2018.
2. Carpentras D., Laforest T., Künzi M., Kowalczyk L., Behar-Cohen F., Moser C., A novel technique for phase imaging of ex-vivo retina, *Proc. SPIE, Ophthalmic technologies XXVIII, XXVIII*, January 27- February 1, 2018.
3. Krizek J., Delrot P., Moser C., Dynamic Control of Laser-Induced Flow-Focused Microjets, In *Frontiers in Optics 2017 (2017), Paper JTU3A.9, JTU3A.9*. Optical Society of America, Laser Science 2017, Washington D.C., USA, September 18-21, 2017.
4. P. Delrot, D. Loterie, D. Psaltis, and C. Moser, Integrated Platform for Multi-resolution Additive Manufacturing, in *Industrializing Additive Manufacturing - Proceedings of Additive Manufacturing in Products and Applications - AMPA*, September 13-15, 2017, 2nd ed. (Springer International Publishing, 2017), Vol. 32, pp. 145–151.
5. Laforest T., Carpentras D., Psaltis D., Moser C., Overcoming the resolution limit in retinal imaging using the scattering properties of the sclera , *Proc. SPIE 9717, Adaptive Optics and Wavefront Control for Biological Systems II*, 971705, April 27, 2016.
6. Laforest T., Carpentras D., Kowalczyk L., Behar-Cohen F., Moser C., Quantitative phase imaging of retinal cells, *Proc. SPIE, Quantitative Phase Imaging III*, January 29-31, 2017.
7. Rostykus M., Moser C., Flat lensless phase imager, *Digital Holography & 3-D Imaging*, OSA, Heidelberg Germany, July 25-28, 2016.
8. Rostykus M., Moser C., Flat lensless phase imager, *Photonics West*, SPIE, San Francisco USA, February 13-18, 2016.

9. P. Delrot, M. A. Modestino, D. Psaltis, and C. Moser, Laser-assisted inkjet printing of highly viscous fluids with sub-nozzle resolution, SPIE Photonics West 2016, SPIE, February 13-18, 2016, vol. 9738, p. 973805.
10. D. Loterie, D. Psaltis and C. Moser, Confocal microscopy via multimode fibers: fluorescence bandwidth, in Proc. SPIE 9717, Adaptive Optics and Wavefront Control for Biological Systems II, SPIE Photonics West 2016, SPIE, February 13-18, 2016, p. 97171C.
11. D. Loterie, Microscopic Imaging Using Fibers, 29th Annual Conference of the IEEE Photonics Society, October 2-6, 2016, Waikoloa, Hawaii, USA.
12. Loterie D., Farahi S., Papadopoulos I., Goy A., Psaltis D., Moser C., Reflection-mode confocal microscopy via a multimode fiber, *CLEO 2015*, OSA, Munich Germany, June 21-25, 2015.
13. Morales Delgado E , Papadopoulos I., Farahi S., Psaltis D., Moser C., Delivery of ultra-short spatially focused pulses through a multimode fiber, *SPIE Optics + Photonics 2015*, San Diego, CA, USA, Aug 9-13, 2015.
14. Loterie D., Farahi S., Papadopoulos I., Goy A., Psaltis D., Moser C., Digital confocal microscopy through a multimode fiber, *SPIE Optics + Photonics 2015*, San Diego, CA, USA, Aug 9-13, 2015.
15. Morales Delgado E , Papadopoulos I., Farahi S., Psaltis D., Moser C., Towards a multimode fiber two-photon endoscope, *CLEO 2015*, OSA, Munich Germany, June 21-25, 2015.
16. Loterie D., Farahi S., Papadopoulos I., Goy A., Psaltis D., Moser C., Reflection-mode confocal microscopy via a multimode fiber, *CLEO 2015*, OSA, Munich Germany, June 21-25, 2015.
17. Morales Delgado E , Papadopoulos I., Farahi S., Psaltis D., Moser C., Focusing pulsed light through a multimode fiber, in *Photorefractive Photonics 2015*. Villars, Switzerland, June 16-19, 2015.
18. Loterie D., Farahi S., Papadopoulos I., Goy A., Psaltis D., Moser C., Reflection-mode confocal microscopy through a multimode fiber, in *Photorefractive Photonics 2015*. Villars, Switzerland, June 16-19, 2015.
19. Morales Delgado E , Papadopoulos I., Farahi S., Psaltis D., Moser C.,, "Delivery of ultrashort spatially focused pulses through a multimode fiber for two photon endoscopic imaging," in *Biophotonics South America 2015*, SPIE, Rio de Janeiro, Brazil, May 23-25, 2015.
20. Monemhagdoust Z., De Gol P., Montfort F., Emery Y., Depeursinge C., Moser C., Towards an incoherent of-axis digital holographic microscope, Proc. SPIE 9336, Quantitative Phase Imaging, San Francisco, CA, February 7-12, 2015.
21. Morales Delgado E , Papadopoulos I., Farahi S., Psaltis D., Moser C., Delivery of an ultrashort spatially focused pulse to the other end of a multimode fiber using digital phase conjugation. Proc. SPIE 9335, Adaptive Optics and Wavefront Control for Biological Systems, 93350J (March 10, 2015); doi:10.1117/12.2078023, San Francisco CA, February 7-12, 2015.
22. Loterie D., Farahi S., Psaltis D., Moser C., Complex pattern projection through a multimode fiber, Proc. SPIE 9335, Adaptive Optics and Wavefront Control for Biological Systems, (March 10, 2015), San Francisco CA, February 7-12, 2015.
23. Zagolla V., Tremblay EJ., Moser C., Demonstration and future potential of a self-tracking phase change actuator, Proc. SPIE, Physics, Simulation, and Photonic Engineering of Photovoltaic Devices, vol. 8981:pp. 89810X–89810X–6, 2014.
24. Zagolla V., Tremblay EJ., Moser C., Self-tracking phase-change concentrator device demonstrator, Proc. SPIE High and Low Concentrator Systems for Solar Energy Applications IX,

volume 9175-12, 2014.

25. Morales E., Farahi S., Papadopoulos I., Psaltis D., and Moser C., Focusing of an ultrashort pulse through a multimode fiber using Digital Phase Conjugation, in *Frontiers in Optics 2014*, OSA Technical Digest (online) (Optical Society of America, 2014), paper FTh1G.7, Tucson AZ, October 19–23, 2014.
26. Zagolla V., Tremblay E.J., Moser C., Self-tracking solar concentration: Improvements to the demonstrator, Light, Energy and the Environment Congress, Optical Society of America, 2014.
27. Monemhagdoust Z., Montfort F., Emery Y., Depeursinge C., Moser C., Portable advanced off-axis camera for quantitative phase microscopy, SPIE, San Francisco, CA, January, 2014
28. Zagolla V., Tremblay , Moser C., Efficiency of a micro bubble reflector based, self-adaptive waveguide solar concentrator, Proc. SPIE, Physics, Simulation, and Photonic Engineering of Photovoltaic Devices, vol. 8620:pp. 862010–862010–8, 2013.
29. Monemhagdoust Z., Montfort F., Emery Y., Depeursinge C., Moser C., Surface topography and vertical scanning in two color low coherence digital holographic microscope, Digital Holography and Three-Dimensional Imaging, Kohala Coast, Hawaii, April 21-25, 2013.
30. Volker Zagolla, Eric Tremblay, and Christophe Moser, Proof-of concept for a self- tracking solar concentrator, Renewable Energy and the Environment, OSA Technical Digest (online):RT3D.2, Optical Society of America, November 2013
31. Eric J.Tremblay et al.,Self tracking planar concentrator using a solar actuated phase-change mechanism, Proc. SPIE, Physics, Simulation, and Photonic Engineering of Photovoltaic Devices II, vol. 8620:pp. 862011–862011–9, 2013
32. Monemhagdoust Z., Montfort F., Emery Y., Depeursinge C., Moser C., Quantitative phase noise in a two-color low coherence digital holographic microscope, Proc. SPIE 8644, Practical Holography XXVII: Materials and Applications, San Francisco, CA, February 2-7, 2013.
33. Zagolla V.,Tremblay EJ, Moser C.,Opto-Fluidic Waveguide Coupling, Renewable Energy and the Environment Optics and Photonics Congress, OSA Technical Digest (online):ST2A.6, Optical Society of America, November 2012
34. Volker Z, Moser C, Trackfree planar solar concentrator system, JAN 23-26, 2012 San Francisco CA, Physics, Simulation and Photonic Engineering of Photovoltaic Devices, Volume 8256, 2012.
35. Monemhagdoust Z., Montfort F., Emery Y., Depeursinge C., Moser C., Single shot dual wavelength full field imaging in low coherence digital holographic microscopy, Practical Holography XXVI: Materials and Applications, volume 8281, San Francisco, CA, January 21-26, 2012
36. Monemhagdoust Z, Monfort F., Emery Y, Depeursinge C., Moser C., Multi-color full-field imaging in low coherence digital holographic microscopy, practical holography XXVI: materials and applications, Volume 8281, 2012
37. Havermeier F., Moser C., Logan R.T., Ho L., Demers J.R, Miniature self-aligned external cavity tunable single frequency laser for THz imaging, Terahertz Technology and Applications V, volume 8261, 2012.
38. 4. V. Zagolla and C. Moser, Planar Diffractive Diffuser, Topical Meeting on Diffractive Optics 2012, Delft, February 2012
39. Moser, C; Havermeier, F, Compact Low Frequency Raman Spectroscopy System, 22nd International Conference on Raman Spectroscopy, Date: AUG 08-13, 2010 Boston MA , XXII



INTERNATIONAL CONFERENCE ON RAMAN SPECTROSCOPY Volume: 1267 Pages: 794-795 , 2010.

40. Moser, C; Havermeyer, F, Distortion free pulse stretching and compression by chirped volume holographic gratings, Conference on High Energy/Average Power Lasers and Intense Beam Applications IV, Date: JAN 25-26, 2010 San Francisco CA , HIGH ENERGY/AVERAGE POWER LASERS AND INTENSE BEAM APPLICATIONS IV Volume: 7581 Article Number: 75810E ,2010.
41. Moser, C; Ho, L; Havermeyer, F, Compact, fast multi-wavelength switchable single frequency laser, Conference Information: Conference on Laser Resonators and Beam Control XII, Date: JAN 24-27, 2010 San Francisco CA , LASER RESONATORS AND BEAM CONTROL XII Volume: 7579 Article Number: 757905, 2010.
42. Moser, C; Havermeyer, F, Compact Raman spectrometer system for low frequency spectroscopy, Conference on Optical Components and Materials VII, Date: JAN 26-28, 2010 San Francisco CA , OPTICAL COMPONENTS AND MATERIALS VII Volume: 7598 Article Number: 75980S , 2010.
43. Moser, C; Ho, L; Havermeyer, F , A novel tunable diode laser using volume holographic gratings Conference on Solid State Lasers XVIII - Technology and Devices, Date: JAN 25-29, 2009 San Jose CA SOLID STATE LASERS XVIII: TECHNOLOGY AND DEVICES Volume: 7193 Article Number: 71930V, 2009.
44. Moser, C; Havermeyer, F , Compact self-aligned external cavity lasers using volume gratings, Conference on Laser Resonators and Beam Control XI, Date: JAN 26-27, 2009 San Jose CA, LASER RESONATORS AND BEAM CONTROL XI Volume: 7194 Article Number: 71940F , 2009.
45. Moser C. ,Ho L., Havermeyer F,. A novel tunable diode laser using volume holographic grating, Proceedings of the SPIE, 7193, pp 71930V-71930V, 2009.

#### **PATENTS (EPFL, from 2010)**

1. US 62/291,542 Device, System and Method for Retinal Imaging
2. PCT/6.1588.2 Ophthalmic system for transcleral illumination with multiple point sources
3. PCT/6.1588.1 System, method and apparatus for retinal phase and dark field imaging with transcleral illumination
4. PCT/6.1588 Device, System, and Method for Retinal Imaging
5. PCT/6.1535 Optical proximity sensing system for atraumatic cochlea implant surgery
6. US/62/198,158 Compact side and multi-angle illumination lensless imager
7. PCT/6.1518 Compact drop-on-demand apparatus using light actuation through optical fibers.
8. PCT/6.1527 Compact side and multi angle illumination lensless imager
9. PCT/6.1492 Device and method for injection photoactivation and solidification of liquid embolic material in the vascular system or other organic cavities.
10. PCT/6.1500 Bending-compensating structure for the motion of optical waveguides.
11. PCT/6.1483 Water vapor microelectrolyzer cells.
12. PCT/6.1124.1 Self-tracking solar concentrator.
13. PCT/6.1450 Minimally invasive optical resolution photoacoustic endoscopy with a single waveguide for light and sound.

14. PCT/6.1003.1 Device for photoactivation and reaction monitoring.
15. PCT/6.1174-1 Method and apparatus for a photoacoustic probe using a multimode fiber.
16. PCT/6.1358 Portable digital holographic camera system.
17. PCT/6.1266-2 Method and apparatus for multiple eyebox head mounted display.
18. PCT/6.1266-1 Retinal display with multiplexed holographic translector for multiple exit pupils.
19. PCT/6.1266 Transflective holographic film for head worn display.
20. PCT/6.1174 Method and Apparatus for beam shaping the output of multimode optical fibers.
21. US 9,206,998 Self-tracking concentrator.

#### Patents before EPFL (2010)

22. U.S 8,384,992: Correcting spatial Beam Deformation.
23. U.S 8,369,017: Optical pulse shaping method and apparatus.
24. U.S 8,184,285: Method and apparatus using volume holographic wavelength blockers
25. U.S 8,139,212: Measurement of volume holographic gratings.
26. U.S 8,049,885: Method and Apparatus for Large Spectral Coverage Measurement of Volume Holographic Gratings.
27. U.S 7,986,407 Method and apparatus using volume holographic wavelength blockers.
28. U.S 7,639,718 Output Coupler for External Cavity Laser.
29. U.S 7,636,376 Method and Apparatus for Wavelength Tuning Laser Diodes.
30. U.S 7,542,639 Holographic pump coupler and laser grating reflector.
31. U.S 7,483,190 Method and Apparatus for Implementing a Multi-Channel Tunable Filter.
32. U.S 7,367,505 Method and a system to dispense and detect fluorescent quantum dots.
33. U.S 7,136,206 Method and Apparatus for implementing a Multi-Channel tunable filter
34. U.S 6,987,907 Tunable Holographic Drop filter with quasi phase conjugate fiber coupling
35. U.S 6,829,067 Method and Apparatus for implementing a Multi-Channel tunable filter
36. 12/069,356 Thermal Spectral Shaping of Volume Holographic Grating Elements.