

References

- Abegg, B., S. Agrawala, et al.** (2007). Climate change impacts and adaptation in winter tourism. In S. Agrawala (Ed.) *Climate Change in the European Alps. Adapting Winter Tourism and Natural Hazards Management*, 25–60.
- Alexander, L. V., X. Zhang, et al.** (2006). Global observed changes in daily climate extremes of temperature and precipitation. *Journal of Geophysical Research* 111: D05109.
- Allegrini, J.** (2012). Urban climate and energy demand in buildings. ETH Zurich Thesis, Nr. 20848.
- Allen, R. G., L. S. Pereira, et al.** (1998). Crop evapotranspiration. Guidelines for Computing Crop Water Requirements. FAO Irrigation and Drainage Paper 56. Food and Agriculture Organization (FAO) of the United Nations, Rome, 300pp.
- Anderson, P. K., A. A. Cunningham, et al.** (2004). Emerging infectious diseases of plants: pathogen pollution, climate change and agrotechnology drivers. *TRENDS in Ecology and Evolution* 19: 535–544.
- Annila, E.** (1969). Influence of temperature upon the development and voltinism of *Ips typographus* L. (Coleoptera, Scolytidae). *Annales Zoologici Fennici* 6: 161–208.
- Araújo, M. B., R. G. Pearson, et al.** (2005). Validation of species-climate impact models under climate change. *Global Change Biology* 11: 1504–1513.
- Araújo, M. B., and M. New** (2007). Ensemble forecasting of species distributions. *Trends in Ecology & Evolution* 22: 42–47.
- Azevedo, I. L., M. Sonnberger, et al.** (2013). The rebound effect: Implications of consumer behaviour for robust energy policies. International Risk Governance Council, Lausanne, Switzerland, 35pp.
- Babst, F., B. Poulter, et al.** (2013). Site- and species-specific responses of forest growth to climate across the European continent. *Ecology and Biogeography* 22: 706–717.
- Ballester, F., P. Michelozzi, et al.** (2003). Weather, climate, and public health. *Journal of Epidemiology and Community Health* 57: 759–760.
- Ballester, J., F. Giorgi, et al.** (2010). Changes in European temperature extremes can be predicted from changes in PDF central statistics. *Climatic Change* 98: 277–284.
- Bauder, A., M. Funk, et al.** (2007). Ice volume changes of selected glaciers in the Swiss Alps since the end of the 19th century. *Annals of Glaciology* 46: 145–149.
- Bavay, M., T. Grünwald, et al.** (2013). Response of snow cover and runoff to climate change in high Alpine catchments of Eastern Switzerland. *Advances in Water Resources* 55: 4–16.
- Begert, M., T. Schlegel, et al.** (2005). Homogeneous temperature and precipitation series of Switzerland from 1864 to 2000. *International Journal of Climatology* 25: 65–80.
- Begert, M., C. Frei, et al.** (2013). Einführung der Normperiode 1981–2010. *Fachbericht MeteoSchweiz* 245: 50pp.
- Bernard, A., and M. Vielle** (2008). GEMINI-E3, a general equilibrium model of international national interactions between economy, energy, and the environment. *Computational Management Science* 5: 173–206.
- BFE** (2012). Analyse des schweizerischen Energieverbrauchs 2000–2011 nach Verwendungszwecken. Bundesamt für Energie, 60pp.
- Bommer C., M. Phillips, et al.** (2010). Practical recommendations for planning, constructing and maintaining infrastructure in mountain permafrost. *Short Communication, Permafrost and Periglacial Processes* 21: 97–104.
- Bosshard, T., S. Kotlarski, et al.** (2011). Spectral representation of the annual cycle in the climate change signal. *Hydrology and Earth System Sciences* 15: 2777–2788.
- Bregaglio, S., M. Donatelli, et al.** (2013). Fungal infections of rice, wheat, and

- grape in Europe in 2030–2050. *Agronomy for Sustainable Development* 33: 767–776.
- Büntgen**, U., D. C. Frank, et al. (2008). Growth responses to climate in a multi-species tree-ring network in the Western Carpathian Tatra Mountains, Poland and Slovakia. *Tree Physiology* 27: 689–702.
- Buser**, C., H. R. Künsch, et al. (2009). Bayesian multi-model projection of climate: bias assumptions and interannual variability. *Climate Dynamics* 33: 849–868.
- Caffarra**, A., M. Rinaldi, et al. (2012). Modelling the impact of climate change on the interaction between grapevine and its pests and pathogens: European grapevine moth and powdery mildew. *Agriculture Ecosystems & Environment* 148: 89–101.
- Calanca**, P. (2007). Climate change and drought occurrence in the Alpine region: How severe are becoming the extremes? *Global and Planetary Change* 57: 151–160.
- Calanca**, P., and M. A. Semenov (2013). Local-scale climate scenarios for impact studies and risk assessments: integration of early 21st century ENSEMBLES projections into the ELPIS database. *Theoretical and Applied Climatology*, 113: 445–455.
- Cattiaux**, J., R. Vautard, et al. (2011). Winter 2010 in Europe: A cold extreme in a warming climate. *Geophysical Research Letters* 37: L20704.
- Ceppi**, P., S. C. Scherrer, et al. (2012). Revisiting Swiss temperature trends 1959–2008. *International Journal of Climatology* 32: 203–213.
- CH2011** (2011). Swiss Climate Change Scenarios CH2011. Zurich, published by C2SM, MeteoSwiss, ETH, NCCR Climate and OcCC.
- Chen**, I. C., J. K. Hill, et al. (2011). Rapid Range Shifts of Species Associated with High Levels of Climate Warming. *Science* 333: 1024–1026.
- Christensen**, J. H., T. Carter, et al. (2002). PRUDENCE employs new methods to assess European climate change. *EOS* 82: 147.
- Christenson**, M., H. Manz, et al. (2006). Climate warming impact on degree-days and building energy demand in Switzerland. *Energy Conversion and Management* 47: 671–686.
- Cioldi**, F., A. Baltensweiler, et al. (2010). Waldressourcen. In: Brändli U–B (ed.) *Schweizerisches Landesforstinventar. Ergebnisse der dritten Erhebung 2004–2006*. Birmensdorf, Eidgenössische Forschungsanstalt für Wald, Schnee und Landschaft WSL. Bern, Bundesamt für Umwelt, BAFU.
- Conti**, S., P. Meli, et al. (2005). Epidemiologic study of mortality during the summer 2003 heat wave in Italy. *Environmental Research* 98: 390–399.
- Deschenes**, O., M. Greenstone, et al. (2009). Climate Change and Birth Weight. *American Economic Review* 99: 211–217.
- Deschenes**, O., and M. Greenstone (2011). Climate Change, Mortality, and Adaptation: Evidence from Annual Fluctuations in Weather in the US. *American Economic Journal: Applied Economics* 3: 152–185.
- Dobbertin**, M., B. Wermelinger, et al. (2007). Linking increasing drought stress to Scots pine mortality and bark beetle infestations. *The Scientific World Journal* 7: 231–239.
- Dullinger**, S., A. Gatterer, et al. (2012). Extinction debt of high-mountain plants under 21st-century climate change. *Nature Climate Change* 2: 619–622.
- Eitzinger**, J., K. C. Kersebaum, et al. (2009). *Landwirtschaft im Klimawandel*. Clenze, Agrimedia.
- Elkin**, C., B. Reineking, et al. (2012). Do small-grain processes matter for landscape scale questions? Sensitivity of a forest landscape model to the formulation of tree growth rate. *Landscape Ecology* 27: 697–711.
- Elkin**, C., A. G. Gutierrez, et al. (2013). A 2°C warmer world is not safe for ecosystem services in the European Alps. *Global Change Biology* 19: 1827–1840.
- Engesser**, R., B. Forster, et al. (2008). Forstliche Schadorganismen im Zeichen des Klimawandels. *Schweizerische Zeitschrift für Forstwesen* 159: 344–351.
- Engler**, R., C. F. Randin, et al. (2011). 21st century climate change threatens mountain flora unequally across Europe. *Global Change Biology* 17: 2330–2341.
- European Environmental Agency** (EEA) (2012). Climate change, impacts and vulnerability in Europe 2012. EEA Report No 12/2012. Luxembourg, Office for Official Publications of the European Union.
- Farinotti**, D., M. Huss, et al. (2009). An estimate of the glacier ice volume in the Swiss Alps. *Global and Planetary Change* 68: 225–231.
- Farinotti**, D., S. Usselmann, et al. (2012). Runoff evolution in the Swiss Alps:

- projections for selected high-alpine catchments based on ENSEMBLES scenarios. *Hydrological Processes*, 26(13), 1909–1924.
- Faust, A. K., C. Gonseth, et al.** (2012). Modélisation de l'adaptation aux changements climatiques dans un modèle intégré, REME Report, EPFL, 158pp.
- Figura, S., D. M. Livingstone, et al.** (2011). Regime shift in groundwater temperature triggered by the Arctic Oscillation, *Geophysical Research Letters*, 38: L23401.
- Figura, S., D. M. Livingstone, et al.** (2013). Competing controls on groundwater oxygen concentrations revealed in multidecadal time series from riverbank filtration sites. *Water Resources Research* 49: 7411–7426.
- Fischer, E. M., C. Schär** (2010). Consistent geographical patterns of changes in high-impact European heatwaves. *Nature Geoscience* 3: 398–403.
- Fischer, A. M., A. P. Weigel, et al.** (2012a). Climate change projections for Switzerland based on a Bayesian multi-model approach. *International Journal of Climatology* 32: 2348–2371.
- Fischer, E.M., J. Rajczak, et al.** (2012b). Changes in European summer temperature variability revisited. *Geophysical Research Letters* 39: L19702.
- FOEN** (2012a). Adaptation to climate change in Switzerland. First part of the Federal Council's strategy, 64pp.
- FOEN** (2012b). Auswirkungen der Klimaänderung auf Wasserressourcen und Gewässer – Synthesebericht zum Projekt «Klimaänderung und Hydrologie in der Schweiz», 76pp.
- Frei, C.** (2014). Interpolation of temperature in a mountainous region using non-linear profiles and non-euclidean distances, *International Journal of Climatology*, in press.
- French, H. M.** (2007). The Periglacial Environment, 3rd edition, 478pp.
- Frich, P., L. V. Alexander, et al.** (2002). Observed coherent changes in climatic extremes during the second half of the twentieth century, *Climatic Research* 19: 193–212.
- Führer, J.** (2012). Bewässerungsbedarf und Wasserdargebot unter heutigen und künftigen Klimabedingungen. Report, Forschungsanstalt Agroscope Reckenholz-Tänikon ART, Zürich, 48pp.
- García-Herrera R., J. Díaz, et al.** (2010). A review of the European summer heat wave of 2003. *Critical Reviews in Environmental Science and Technology* 40: 267–306.
- Gregory, P. J., S. N. Johnson, et al.** (2009). Integrating pests and pathogens into the climate change/food security debate. *Journal of Experimental Botany* 60: 2827–2838.
- Greening, L. A., D. L. Greene, et al.** (2000). Energy efficiency and consumption – the rebound effect – a survey. *Energy Policy* 28: 389–401.
- Guisan, A., and N. E. Zimmermann** (2000). Predictive habitat distribution models in ecology. *Ecological Modelling* 135: 147–186.
- Haeberli, W., J. Nötzli, et al.** (2010). Mountain permafrost – development and challenges of a young research field. *Journal of Glaciology* 56: 1043–1058.
- Haeberli, W., A. Schleiss, et al.** (2012). Gletscherschwund und neue Seen in den Schweizer Alpen – Perspektiven und Optionen im Bereich Naturgefahren und Wasserkraft. *Wasser Energie Luft* 104: 93–102.
- Hagemeijer, W. J. M., and M. J. Blair** (1997). The EBCC atlas of European breeding birds, their distribution and abundance, edn. Poyser, London.
- Hänggi, P., P. S. Angehm, et al.** (2011a). Einfluss der Klimaänderung auf die Stromproduktion der Wasserkraftwerke Löntzsch und Prättigau. *Wasser, Energie, Luft* 4: 292–299.
- Hänggi, P., R. Weingartner, et al.** (2011b). Auswirkungen der Klimaänderung auf die Wasserkraftnutzung in der Schweiz 2021–2050 – Hochrechnung. *Wasser, Energie, Luft* 4: 300–307.
- Hansen, J., M. Sato, et al.** (2012). Perception of climate change. *Proceedings of the National Academy of Sciences of the United States of America* 109: 14726–14727.
- Hijmans, R. J., S. E. Cameron, et al.** (2005). Very high resolution interpolated climate surfaces for global land areas. *International Journal of Climatology* 25: 1965–1978.
- Hirschi, M., S. Stoeckli, et al.** (2012). Downscaling climate change scenarios for apple pest and disease modeling in Switzerland. *Earth System Dynamics* 3: 33–47.

- Hoehn, E., and A. Scholtis (2011).** Exchange between a river and groundwater, assessed with hydrochemical data. *Hydrology and Earth System Sciences* 15: 983–988.
- Holthausen, Perch-Nielsen, et al. (2011).** Pilotprojekt Analyse klimabedingter Risiken und Chancen in der Schweiz. Ernst Basler + Partner, WSL und SLF, im Auftrag von BAFU und ARE, 139pp.
- Holzkämper, A., J. Fuhrer, et al. (2013a).** Temperaturtrends und Rebbau in der Schweiz. *Schweizer Zeitschrift für Obst- und Weinbau* 13: 6–9.
- Holzkämper, A., P. Calanca, et al. (2013b).** Identifying climatic limitations to grain maize yield potentials using a suitability evaluation approach. *Agricultural and Forest Meteorology* 168: 149–159.
- Huggel, C., J. J. Clague, et al. (2012).** Is climate change responsible for changing landslide activity in high mountains? *Earth Surface Processes and Landforms* 37: 77–91.
- Hugh-Jones, M. E. (1994).** Livestock: Management and decision making. In Griffiths, J. F. (ed.) *Handbook of agricultural meteorology*, 291–298. New York: Oxford University Press.
- Huglin, P. (1978).** Nouveau mode d'évaluation des possibilités hélio thermiques d'un milieu viticole. In: *Proceedings of the Symposium International sur l'écologie de la Vigne*. Ministère de l'Agriculture et de l'Industrie Alimentaire, Contança, 89–98.
- Hunt, H., J. Schubert, et al. (2002).** Operation and maintenance considerations, in *Riverbank filtration: Improving source-water quality*, Water science and technology library, 43, edited by C. Ray et al., pp. 61–70, Kluwer Academic Publishers, Dordrecht, Netherlands.
- Huss, M., A. Bauder, et al. (2008).** Determination of the seasonal mass balance of four alpine glaciers since 1865. *Journal of Geophysical Research*, 113: F01015.
- Huss, M., G. Jouvet, et al. (2010).** Future high-mountain hydrology: A new parameterization of glacier retreat. *Hydrology and Earth System Science* 14: 815–829.
- Im, E. S., E. Coppola, et al. (2010).** Local effects of climate change over the Alpine region: A study with a high resolution regional climate model with a surrogate climate change scenario, *Geophysical Research Letters* 37: L05704.
- IMS Health (2012).** Monthly data on pharmaceutical sales in Switzerland. IMS Health, Hergiswil, Switzerland.
- IPCC (1990). First Assessment Report of the Intergovernmental Panel on Climate Change.** Cambridge University Press, Cambridge, UK, and New York, NY, USA.
- IPCC (1995). Second Assessment Report of the Intergovernmental Panel on Climate Change.** Cambridge University Press, Cambridge, UK, and New York, NY, USA.
- IPCC (2001). Third Assessment Report of the Intergovernmental Panel on Climate Change.** Cambridge University Press, Cambridge, UK, and New York, NY, USA.
- IPCC (2007a). Climate Change 2007: The physical science basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.** Cambridge University Press, Cambridge, UK, and New York, NY, USA, 996pp.
- IPCC (2007b). Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.** Cambridge University Press, Cambridge, UK, and New York, NY, USA, 976pp.
- IPCC (2012). Managing the risks of extreme events and disasters to advance climate change adaptation. A special report of Working Groups I and II of the Intergovernmental Panel on Climate Change.** Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582pp.
- IPCC (2013). Climate Change 2013: The physical science basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.** Cambridge University Press, Cambridge, UK, and New York, NY, USA.
- Isaac, M., and D.P. van Vuuren (2009).** Modeling global residential sector energy demand for heating and air conditioning in the context of climate change. *Energy Policy* 37: 507–521.
- Jalas, J., and J. Suominen (1972–2005).** *Atlas Florae Europaeae*, edn. The Committee for Mapping the Flora of Europe and Societas Biologica Fennica Vanamo, Helsinki.
- Jansson, P. E. (2012).** CoupModel: model use, calibration, and validation. *Transactions of the ASABE* 55: 1335–1344.
- Johnson, H. D. (1994).** Animal Physiology. In Griffiths, J. F. (ed.) *Handbook of agricultural meteorology*, 256–263. New York: Oxford University Press.

- Jones**, G. V., R. Reid, et al. (2012). Climate, Grapes, and Wine: Structure and Suitability in a Variable and Changing Climate. In Dougherty, P. H. (ed.) *The geography of wine: regions, terroir and techniques*, 109–133. Dordrecht, Springer Verlag.
- Kapphan**, I., P. Calanca, et al. (2012). Climate Change, Weather Insurance Design and Hedging Effectiveness. *The Geneva Papers* 37: 286–317.
- Köplin**, N., B. Schädler, et al. (2012). Relating climate change signals and physiographic catchment properties to clustered hydrological response types. *Hydrology and Earth System Sciences* 16: 2267–2283.
- Köplin**, N., B. Schädler, et al. (2014). Seasonality and magnitude of floods in Switzerland under future climate change. *Hydrological Processes*, 28: 2567–2578..
- Klein**, T., A. Holzkämper, et al. (2013). Adapting agricultural land management to climate change: A regional multi-objective optimization approach. *Landscape Ecology* 28: 2029–2047.
- Klein**, T., A. Holzkämper, et al. (2014). Adaptation options under climate change for multifunctional agriculture – a simulation study for western Switzerland. *Regional Environmental Change* 14: 167–184.
- Klein** Tank, A. M. G., F. W. Zwiers, et al. (2009). Guidelines on Analysis of extremes in a changing climate in support of informed decisions for adaptation, World Meteorological Organization (WMO), WMO-TD (1500).
- Knutti**, R. (2008). Should we believe model predictions of future climate change? *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 366: 4647–4664.
- Knutti**, R., R. Furrer, et al. (2010). Challenges in combining projections from multiple climate models. *Journal of Climate* 23: 2739–2758.
- Kobierska**, F., T. Jonas, et al. (2013). Future runoff from a partly glacierized water-shed in Central Switzerland: A two-model approach. *Advances in Water Resources* 55: 204–214.
- Kotlarski**, S., T. Bosshard, et al. (2012). Elevation gradients of European climate change in the regional climate model COSMO-CLM, *Climatic Change* 112: 189–215.
- Lautenschlager**, M., K. Keuler, et al. (2009). Climate simulation with CLM, Scenario A1B run no.1, Data Stream 3:
- European region MPI-M/MaD. Deutsches Klimatechenzentrum, Hamburg, Germany.
- Lehning**, M., I. Volksch, et al. (2006). ALPINE3D: a detailed model of mountain surface processes and its application to snow hydrology. *Hydrological Processes* 20: 2111–2128.
- Linsbauer**, A., F. Paul, et al. (2013). Comparing three different methods of modeling scenarios of future glacier change in the Swiss Alps, *Annals of Glaciology* 54: 241–253.
- Lischke**, H., N. E. Zimmermann, et al. (2006). TreeMig: A forest-landscape model for simulating spatio-temporal patterns from stand to landscape scale. *Ecological Modelling* 199: 409–420.
- Lobell**, D. B., W. Schlenker, et al. (2011). Climate trends and global crop production since 1980. *Science* 333: 616–620.
- Lustenberger**, A., Knutti, R., et al. (2014). The potential of pattern scaling for projecting temperature-related extreme indices, *International Journal of Climatology* 34: 18–26.
- Lüthi**, M. P. (2009). Transient response of idealized glaciers to climate variations. *Journal of Glaciology* 55: 918–930.
- Lüthi**, M. P., A. Bauder, et al. (2010). Glacier volume change reconstruction from length change data of the Swiss Alps. *Journal of Geophysical Research* 115: F04022.
- Marty**, C. (2008). Regime shift of snow days in Switzerland. *Geophysical Research Letters* 35: L12501.
- Masson**, D., and R. Knutti (2011). Climate model genealogy. *Geophysical Research Letters* 38: L08703.
- Meier**, F., R. Engesser, et al. (2009). Forstschutz-Überblick 2008. Eidg. Forschungsanstalt Wald Schnee Landschaft WSL, Birmensdorf CH, 24pp.
- MeteoSchweiz** (2013). Klimaszenarien Schweiz – Eine regionale Übersicht. Fachbericht MeteoSchweiz 243, 36pp.
- Meyer**, R. (2012). Die Auswirkungen der projizierten Klimaänderung auf Sommerniedrigwasser im Schweizer Mittelland basierend auf einer multi-varianlen Kalibrierung des hydrologischen Modellsystems PREVAH. Inauguraldissertation der Philosophisch-naturwissenschaftlichen Fakultät der Universität Bern.
- Nakicenovic**, N., and R. Swart (2000). *IPCC Special Report Emission Scenarios*. Cambridge, IPCC.

- NewIndex AG** (2012). Monthly data on doctor visits in Switzerland. NewIndex AG, Olten, Switzerland.
- OcCC** (2003). Extremereignisse und Klimaänderung. OcCC/ProClim, Bern, Switzerland, 88pp.
- OcCC** (2007). Klimaänderung und die Schweiz 2050 – Erwartete Auswirkungen auf Umwelt, Gesellschaft und Wirtschaft. OcCC/ProClim, Bern, Switzerland, 168pp.
- Parmesan**, C., and G. Yohe (2003). A globally coherent fingerprint of climate change impacts across natural systems. *Nature* 421: 37–42.
- Pearman**, P. B., and D. Weber (2007). Common species determine richness patterns in biodiversity indicator taxa. *Biological Conservation* 138: 109–119.
- Pearman**, P. B., A. Guisan, et al. (2011). Impacts of climate change on Swiss biodiversity: An indicator taxa approach. *Biological Conservation* 144: 866–875.
- PERMOS** (2010). Permafrost in Switzerland 2006/2007 and 2007/2008. Noetzli, J. and Vonder Mühl, D. (eds.), Glaciological Report (Permafrost) No. 8/9 of the Cryospheric Commission of the Swiss Academy of Sciences, 68pp.
- Pesquer**, L., A. Cortés, et al. (2010). Parallel ordinary kriging interpolations incorporating automatic variogram fitting. *Computer & Geosciences* 37: 464–473.
- Petgen**, M., (2007). Reaktion der Reben auf den Klimawandel. *Schweizer Zeitschrift für Obst- und Weinbau* 9: 6–9.
- Rahmstorf**, S., and D. Coumou (2012). Increase of extreme events in a warming world. *Proceedings of the National Academy of Sciences of the United States of America* 109: 4708.
- Rajczak**, J., P. Pall, et al. (2013). Projections of extreme precipitation events in regional climate simulations for Europe and the Alpine Region, *Journal of Geophysical Research* 118: 3610–3626.
- Rasche**, L., L. Fahse, et al. (2012). Enhancing gap model accuracy by modeling dynamic height growth and dynamic maximum tree height. *Ecological Modelling* 232: 133–143.
- Rigling**, A., C. Elkin, et al. (2012). Waldentwicklung in zentral-alpinen Trockentälern unter fortschreitendem Klimawandel – die Fallstudie Region Visp. *Schweizerische Zeitschrift für Forstwesen* 163: 481–492.
- Rigling**, A., C. Bigler, et al. (2013). Driving factors of a vegetation shift from Scots pine to pubescent oak in dry Alpine forests. *Global Change Biology* 19: 229–240.
- Rixen**, C., M. Teich, et al. (2011). Winter Tourism and Climate Change in the Alps: an Assessment of Resource Consumption, Snow Reliability, and Future Snow-making Potential. *Mountain Research and Development* 31: 229–236.
- Robine** J.M., S. L. K. Cheung, et al. (2008). Death toll exceeded 70,000 in Europe during the summer of 2003. *Comptes Rendus Biologies* 331: 171–178.
- Sadras**, V. O., and M. A. Moran (2013). Asymmetric warming effect on the yield and source: Sink ratio of field-grown grapevine. *Agricultural and Forest Meteorology* 173: 116–126.
- Salzmann**, N., S. Kotlarski, et al. (2013). Advancing and facilitating the use of RCM data in climate impacts research. *Impacts World 2013, International Conference on Climate Change Effects*, May 27–30 2013, Potsdam: 565–572.
- Samietz**, J., B. Graf, et al. (2008). SOPRA: phenology modelling of major orchard pests – from biological basics to decision support. *Acta Horticulturae* 803: 35–42.
- SBV/USP** (Schweizerischer Bauernverband/Union Suisse des Paysans) (2012). Statistische Erhebungen und Schätzungen über Landwirtschaft und Ernährung/Statistiques et évaluations concernant l'agriculture et l'alimentation 2011. SBV Statistik/USP Statistique, Brugg, 268pp.
- Schär**, C., and G. Jendritzki (2004). Hot news from summer 2003. News and views. *Nature* 432: 559–560.
- Schär**, C., P. L. Vidale, et al. (2004). The role of increasing temperature variability in European summer heatwaves. *Nature* 427: 332–336.
- Scherler**, M., C. Hauck, et al. (2010). Meltwater infiltration into the frozen active layer at an alpine permafrost site. *Permafrost and Periglacial Processes* 21: 325–334.
- Scherler**, M., Hauck, et al. (2013). Modeled sensitivity of two alpine permafrost sites to RCM-based climate scenarios *Journal of Geophysical Research* 118: 780–794.
- Scherrer**, S. C., C. Appenzeller, et al. (2004). Trends in Swiss Alpine snow days: The role of local- and large-scale climate variability. *Geophysical Research Letters* 31: L13215.

- Scherrer, S. C., C. Appenzeller, et al.** (2005). European temperature distribution changes in observations and climate change scenarios. *Geophysical Research Letters* 32: L19705.
- Schulla, J., and K. Jasper** (2007). Model Description WaSiM-ETH. Technical report, 181pp.
- Schürch, M.** (2011). Auswirkungen des Klimawandels auf das Grundwasser. Erster Bericht der Arbeitsgruppe „Klima und Grundwasser“, Gas Wasser Abwasser 3: 177–182.
- Schweizerische Gesellschaft für Hydrologie und Limnologie (SGHL) und Hydrologische Kommission (CHy) (Hrsg.)** 2011: Auswirkungen der Klimaänderung auf die Wasserkraftnutzung – Synthesebericht. Beiträge zur Hydrologie der Schweiz, Nr. 38, 28 S., Bern. (2011).
- Scott, D., C. M. Hall, et al.** (2012). Tourism and climate change, London and New York: Routledge.
- Seibert, J., and M. J. P. Vis** (2012). Teaching hydrological modeling with a user friendly catchment-runoff-model software package. *Hydrology and Earth System Sciences* 16: 3315–3325.
- Serquet, G., C. Marty, et al.** (2011). Seasonal trends and temperature dependence of the snowfall/precipitation day ratio in Switzerland. *Geophysical Research Letters* 38: L07703.
- SFSO** (2012). Monthly data on hospitalizations in Switzerland. Swiss Federal Statistical Office, Neuchâtel, Switzerland.
- SIA** (1982). Degree-days in Switzerland, Recommendation 381/3, Swiss Society of Engineers and Architects, Zurich.
- Sivakumar, M. V. K., and R. P. Motha** (eds) (2007). Managing climate risks in agriculture. Berlin: Springer
- Sorrell, S.** (2007). The rebound effect: An assessment of the evidence for economy-wide energy savings from improved energy efficiency. A report produced by the Sussex Energy Group for the Technology and Policy Assessment function of the UK Energy Research Centre, UK Energy Research Centre
- Sprenger, C., G. Lorenzen, et al.** (2011). Vulnerability of bank filtration systems to climate change. *Science of the Total Environment* 409: 655–663.
- Steiger, R.** (2010). The impact of climate change on ski season length and snow-making requirements, *Climate Research* 43: 251–62.
- Steiger, R., and B. Abegg** (2013). The Sensitivity of Austrian Ski Areas to Climate Change, *Tourism Planning & Development* 10: 480–493.
- Stern, N., S. Peters, et al.** (2006). Stern Review: The Economics of Climate Change, HM Treasury, London.
- Stoeckli, S., M. Hirschi, et al.** (2012). Impact of climate change on voltnism and prospective diapause induction of a global pest insect – *Cydia pomonella* (L.). *PLoS ONE* 7: e35723.
- Stoffel, M., and C. Huggel** (2012). Effects of climate change on mass movements in mountain environments. *Progress in Physical Geography* 36: 421–439.
- Surchat, M.** (2011). Les scénarios à long terme du PIB suisse, *La Vie économique – Revue de politique économique* 6: 9–11.
- Swiss Statistical Office** (2010). Les scénarios de l'évolution de la population de la Suisse 2010–2060, Neuchâtel: Office fédéral de la statistique.
- Temperli, C., H. Bugmann, et al.** (2013). Cross-scale interactions among bark beetles, climate change, and wind disturbances: a landscape modeling approach. *Ecological Monographs* 83: 383–402.
- Thom, E. C.** (1958). The discomfort index. *Weatherwise* 12: 57–60.
- Thomas, C. D., and J. J. Lennon** (1999). Birds extend their ranges northwards. *Nature* 399: 213–213.
- Thomas, C. D., A. Cameron, et al.** (2004). Extinction risk from climate change. *Nature* 427: 145–148.
- Tinner, W., M. Conedera, et al.** (2005). Fire ecology north and south of the Alps since the last ice age. *Holocene* 15: 1214–1226.
- Torriani, D. S., P. Calanca, et al.** (2007). Potential effects of changes in mean climate and climate variability on the yield of winter and spring crops in Switzerland. *Climate Research* 34: 59–69.
- Torriani, D. S., P. Calanca, et al.** (2008). Hedging with weather derivative to cope with climate variability and change in grain maize production. *Agricultural Finance Review* 68: 67–81.
- Trnka, M., J. E. Olesen, et al.** (2011). Agroclimatic conditions in Europe under climate change. *Global Change Biology* 17: 2298–2318.
- Vandentorren S., F. Suzan, et al.** (2004). Mortality in 13 French cities during the August 2003 heat wave. *American Journal of Population health* 94: 1518–1520.

- van der Linden, P., and J. F. B. Mitchell** (2009). ENSEMBLES: Climate Change and its Impacts: Summary of research and results from the ENSEMBLES project. Exeter, Met Office Hadley Centre.
- VAW** (1990). Schnee, Eis und Wasser der Alpen in einer wärmeren Atmosphäre; B. Schädler, Abfluss. Internationale Fachtagung, VAW, SLF, ETHZ, Zürich.
- Viviroli, D., M. Zappa, et al.** (2009a). Continuous simulation for flood estimation in ungauged mesoscale catchments of Switzerland – Part I: Modelling framework and calibration results. *Journal of Hydrology* 377: 191–207.
- Viviroli, D., H. Mittelbach, et al.** (2009b). Continuous simulation for flood estimation in ungauged mesoscale catchments of Switzerland – Part II: Parameter regionalisation and flood estimation results. *Journal of Hydrology* 377: 208–225.
- Weber, D., U. Hintermann, et al.** (2004). Scale and trends in species richness: considerations for monitoring biological diversity for political purposes. *Global Ecology and Biogeography* 13: 97–104.
- Wedekind, C., and C. Küng** (2010). Shift of Spawning Season and Effects of Climate Warming on Developmental Stages of a Grayling (Salmonidae). *Conservation Biology* 24: 1418–1423.
- Wermelinger, B.** (2004). Ecology and management of the spruce bark beetle Ips typographus – a review of recent research. *Forest Ecology and Management* 202: 67–82.
- WHO** (2009). Global Health Risks – Mortality and burden of disease attributable to selected major risks. World Health Organization, Geneva.
- WHO** (2012). Climate change and health. World Health Organization Fact sheet No. 266.
- WMO** (1967). A note on climatological normals. Technical note No. 84: 17pp.
- WMO** (2012). Draft of the implementation plan of the global framework for climate services (GFCS), www.wmo.int, World Meteorological Organization, Geneva, Switzerland.
- Zanobetti, A., and J. Schwartz** (2008). Temperature and mortality in nine US cities. *Epidemiology* 19: 563–570.
- Zubler, E. M., A. M. Fischer, et al.** (2014a). Localized climate change scenarios of mean temperature and precipitation over Switzerland. *Climatic Change*: submitted.
- Zubler, E. M., S. C. Scherrer, et al.** (2014b). Key climate indices in Switzerland; expected changes in a future climate. *Climatic Change*: in press.