

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

Publications including published congress abstracts

Klimesch, W. (1974). *Informationstheoretische Indikatoren der Intelligenz*. Unpublished doctoral dissertation, University of Salzburg, Salzburg.

Klimesch, W., & Roth, E. (1975). Subjektiver Schwellenwert minimaler Redundanz: Ein Test zur Mustererkennung. Research Report, VW-Stiftung.

Klimesch, W. (1976). Die Effektivität verschiedener Codierungsstrategien und ihr Zusammenhang mit Intelligenz; überprüft mit Hilfe einfacher Simulationsprogramme. *Psychologische Beiträge*, 18, 372-389.

Klimesch, W. (1976). Persönlichkeitsfaktor. In F. Dorsch (Eds.), *Psychologisches Wörterbuch* (pp. 425-426). Bern: Hans Huber.

Roth, E., Ardelt, E., & Klimesch, W. (1978). Entwicklung von Meßmethoden zur Erfassung der Zusammenhänge zwischen Struktur einer Kommunikation und der Einstellungsstruktur beim Rezipienten. In *Kommunikationspolitische und kommunikationswissenschaftliche Forschungsprojekte der Bundesregierung* (pp. 283-288). Bonn: Presse- und Informationsamt der Bundesregierung.

Klimesch, W. (1979a). Ansätze zu einer Theorie des Vergessens. In H. Ueckert & D. Rhenius (Eds.), *Komplexe menschliche Informationsverarbeitung* (pp. 28-37). Bern: Hans Huber.

Klimesch, W. (1979b). Reminiszenz bei visuellen Merkaufgaben: Implikationen für die Art des Vergessensprozesses. *Psychologische Beiträge*, 21, 40-48.

Klimesch, W. (1979c). Ergebnisse aus der Gedächtnisforschung: Die Möglichkeit ihrer Anwendung im Rahmen unterrichtswissenschaftlicher Fragen. *Protokoll des 19. Kybernetisch-Pädagogischen Werkstattgespräches* (pp. 23-31), Berlin.

Klimesch, W. (1979d) Vergessen: Interferenz oder Zerfall? Über neuere Entwicklungen der Gedächtnispsychologie. *Psychologische Rundschau*, 30, 110-131.

Roth, E., & Klimesch, W. (1979). Hochschulzulassung durch Tests? *Psychologische Rundschau*, 30, 34-45.

Klimesch, W. (1980a). Die Bedeutung der Verbalisierung für die Merkleistung komplexer Bilder. *Zeitschrift für experimentelle und angewandte Psychologie*, 27, 245-256.

Klimesch, W. (1980b). On the Question of Visual Coding Processes in Short- and Long-Term Memory [Abstract]. *International Congress of Psychology* (p. 135). Leipzig: Abstract Guide.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Klimesch, W. (1981). Die Encodierung von Begriffen auf der Basis von Merkmalsstrukturen. *Zeitschrift für experimentelle und angewandte Psychologie*, 28, 609-635.
- Laubichler, W., & Klimesch, W. (1981). Der traumatische Dämmerzustand. *Nervenarzt*, 52, 36-40.
- Laubichler, W., & Klimesch, W. (1981). Die Problematik einer Unterteilung der Comotio cerebri in schwere und leichte Körperverletzungen. *Zeitschrift für Rechtsmedizin*, 87, 179-186.
- Laubichler, W., Klimesch, W., & Maier, F. (1981). Statistische Untersuchungen zum Commotionssyndrom: Ein Beitrag zur forensischen Situation in Österreich. *Nervenarzt*, 52, 660-663.
- Klimesch, W. (1982). Die semantische Encodierung von Bildern. *Zeitschrift für experimentelle und angewandte Psychologie*, 29, 472-504.
- Klimesch, W. (1982). Verbal Processes in Visual Short- and Long-Term Memory: Evidence against the Hypothesis of Independent Visual and Verbal Codes? *International Journal of Psychology*, 17, 9-17.
- Klimesch, W. (1982). Visual Coding Processes and Semantic Classification. In F. Klix, J. Hoffmann & E. van der Meer (Eds.), *Cognitive Research in Psychology* (pp. 90-97). Amsterdam: North-Holland Publishing Co.
- Klimesch, W. (1983). Psychological constraints on thinking [Abstract]. *International Congress of Philosophy* (Vol. 5, pp. 50-51). Salzburg: Abstract Guide.
- Klimesch, W. (1983). Werden Bilder und Wörter durch gemeinsame semantische Codes repräsentiert? In G. Lüer (Ed.), *Bericht über den 33. Kongreß der DGfP in Mainz 1982*, (Band 1, pp. 239-243), Göttingen: Hogrefe.
- Laubichler, W., & Klimesch, W. (1983). Die alkoholischen Bewußtseinsstörungen aus forensischer Sicht. *Blutalkohol*, 20, 81-90.
- Hoffmann, J., & Klimesch, W. (1984). Die semantische Codierung von Wörtern und Bildern. *Sprache & Kognition*, 3, 1-25.
- Klimesch, W. (1984). Laterality Effects in the Processing of Concepts? [Abstract]. *International Congress of Psychology* (Vol. 1, p. 141). Acapulco: Abstract Guide.
- Klimesch, W., & Feichtinger, L. (1984). Semantische Ähnlichkeitseffekte bei Größenvergleichsaufgaben. *Zeitschrift für experimentelle und angewandte Psychologie*, 31, 63-83.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Klimesch, W. (1985). The structure of memory codes. *Symposium in memoriam Hermann Ebbinghaus* (p. 21). Berlin: Abstract Guide.
- Klimesch, W. (1986). Codierung und kognitive Struktur: Das Repräsentationsproblem. In K. Daumenlang & J. Sauer (Eds.), *Aspekte psychologischer Forschung* (pp. 277-292). Göttingen: Hogrefe.
- Klimesch, W. (1986). Die Aktivierung von Gedächtnisstrukturen: Ein Vernetzungsmodell der semantischen Informationsverarbeitung [Abstract]. In M. Amelang (Ed.), *Bericht über den 35. Kongreß der DGfP in Heidelberg, 1986* (p. 217). Göttingen: Hogrefe.
- Klimesch, W. (1986). The structure of memory codes. In F. Klix & H. Hagendorf (Eds.), *Human memory and cognitive capabilities: Mechanisms and Performances* (pp. 245-252). Amsterdam, North Holland: Elsevier.
- Klimesch, W., Pfurtscheller, G., & Lindinger, G. (1986). Das corticale Aktivierungsmuster bei verbalen Gedächtnisaufgaben. *Sprache & Kognition*, 5, 140-154.
- Klimesch, W., Pfurtscheller, G., & Lindinger, G. (1986). Zur gehirnlokalisatorischen Erfassung kognitiver Prozesse: EEG-Mapping bei Gedächtnisprozessen [Abstract]. In M. Amelang (Ed.), *Bericht über den 35. Kongreß der DGfP in Heidelberg 1986* (p. 232). Göttingen: Hogrefe.
- Ladurner, G., Schimke, H., Wranek, U., & Klimesch, W. (1986). P300 bei vaskulärer (Multiinfarkt-)Demenz [Abstract]. *Zeitschrift für EEG und EMG*, 17, 221.
- Pfurtscheller, G., Lindinger, G., & Klimesch, W. (1986). Dynamisches EEG-Mapping: Bildgebendes Verfahren für die Untersuchung perzeptiver, motorischer und kognitiver Hirnleistungen. *Zeitschrift für EEG und EMG*, 17, 113-116.
- Klimesch, W. (1987). A connectivity model for semantic processing. *Psychological Research*, 49, 53-61.
- Klimesch, W., Pfurtscheller, G., & Lindinger, G. (1987). Verbal memory and the pattern of cortical activation [Abstract]. *The German Journal of Psychology*, 11, 136-137.
- Klimesch, W., Pfurtscheller, G., & Schimke, H. (1987). The decomposition of semantic processing times: studied with the dynamic EEG-mapping, evoked potentials and reaction time experiments [Abstract]. *Journal of Psychophysiology*, 1, 280.
- Klimesch, W., & Schimke, H. (1987). Visuell evozierte Potentiale und Hemisphären-differenzen. *Zeitschrift für EEG und EMG*, 18, 27-31.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Pfurtscheller, G., & Klimesch, W. (1987). Untersuchung kognitiver Hirnleistungen mit einem dynamischen EEG-Mapping System. In H. Weinmann (Ed.), *Zugang zum Verständnis höherer Hirnfunktionen* (pp. 25-80). München: W. Zuckschwerdt.
- Klimesch, W. (1988). *Struktur und Aktivierung des Gedächtnisses. Das Vernetzungsmodell: Grundlagen und Elemente einer übergreifenden Theorie*. Bern: Hans Huber.
- Klimesch, W. (1988). Zur Krise der Gedächtnispsychologie: Das Repräsentationsproblem [Abstract]. In W. Schönplugg (Ed.), *Bericht über den 36. Kongreß der DGfP in Berlin 1988* (Band 1, pp. 94-95). Göttingen: Hogrefe.
- Klimesch, W., Ladurner, G., & Schimke, H. Abschlußbericht zum Forschungsprojekt "Experimentalpsychologische Ansätze zur Diagnose neurologischer Symptome" an den Fonds zur Förderung der wissenschaftlichen Forschung, Juli 1988.
- Klimesch, W., Pfurtscheller, G., & Mohl, W. (1988). ERD-Mapping and long-term memory: The temporal and topographical pattern of cortical activation. In G. Pfurtscheller & F. H. Lopes da Silva (Eds.), *Functional Brain Imaging* (pp. 131-141). Toronto: Hans Huber.
- Kroll, N., & Klimesch, W. (1988). Fans in episodic memory: reversed fans in semantic memory [Abstract]. *29th Annual Meeting of the Psychonomic Society, Nov. 1988* (p. 17). Abstract Guide.
- Pfurtscheller, G. & Klimesch, W. (1988). Cortical activation pattern during reading and recognition of words studied with dynamic event-related desynchronization mapping. In K. Maurer (Ed.), *Topographic brain mapping of EEG and evoked potentials* (pp. 303-313). Heidelberg: Springer.
- Klimesch, W., Schimke, H., & Ladurner, G. (1988). Die Suchzeit für episodische und semantische Information. *Sprache & Kognition*, 7, 129-143.
- Klimesch, W. (1989). Bewußtsein und Gedächtnis: Zur Neuropsychologie kognitiver und emotionaler Kontrollprozesse. In E. Roth (Ed.), *Denken und Fühlen* (pp. 146-163). Berlin: Springer.
- Klimesch, W., & Pfurtscheller, G. (1989). EEG-Mapping, Attention and Cognitive Processes. *1st European Congress of Psychology* (p. 400). Amsterdam: Abstract Guide July 1989.
- Klimesch, W., Pfurtscheller, G., Schimke, H., & Mohl, W. (1989). Does the lower - in contrast to the upper - alpha band reflect expectancy and attentional processes? [Abstract]. *Journal of Psychophysiology*, 3, 215-218.
- Klimesch W. (1990). Gedächtnis: Klassifikation und Diagnostik. In U. Baumann & M. Perrez (Eds.), *Lehrbuch klinische Psychologie* (pp. 93-99). Bern: Hans Huber.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Klimesch W. (1990). Gedächtnis: Ätiologie/Bedingungsanalyse. In U. Baumann & M. Perrez (Eds.), *Lehrbuch klinische Psychologie* (pp. 182-191). Bern: Hans Huber.
- Klimesch, W., Pfurtscheller, G., Mohl, W., & Schimke, H. (1990). Event-related desynchronization, ERD-mapping and hemispheric differences for words and numbers. *International Journal of Psychophysiology*, 8, 297-308.
- Klimesch, W., Schimke, H., Ladurner, G., & Pfurtscheller, G. (1990). Alpha frequency and memory performance. *Journal of Psychophysiology*, 4, 381-390.
- Klimesch, W., Schimke, H., & Pfurtscheller, G. (1990). The topography of alpha frequency and memory performance [Abstract]. *Journal of Psychophysiology*, 4, 191-192.
- Ladurner, G., Schimke, H., Wranek, U., & Klimesch, W. (1990). The value of P300 in the diagnosis of cognitive impairment in stroke. *Archives for Gerontology and Geriatrics*, 10, 1-8.
- Pfurtscheller, G., & Klimesch, W. (1990). Topographical display and interpretation of event-related desynchronization during a visual-verbal task. *Brain Topography*, 3, 85-93.
- Pfurtscheller, G., Klimesch, W., Berghold, A., Mohl, W., & Schimke, H. (1990). Event-related desynchronization (ERD) correlated with cognitive activity. In E.R. John (Ed.), *Machinery of the Mind* (pp. 241-251). Boston: Birkhäuser.
- Schimke, H., Klimesch, W., & Pfurtscheller, G. (1990). Ereignisbezogene Desynchronisation und die Wahl des Alpha-Frequenzbandes zur Quantifizierung kortikaler Prä- und Poststimulus-Aktivierung. *Zeitschrift für EEG und EMG*, 20, 219-225.
- Wranek, U., Ladurner, G., & Klimesch, W. (1990). P300 und Demenz: Diagnostische Relevanz I. *Zeitschrift für EEG und EMG*, 20, 137-144.
- Klimesch, W. (1991). Vom Gedächtnisnetzwerk zum neuronalen Netzwerk: Implikationen für einen interdisziplinären Ansatz. In D. Frey & G. Köhnken (Eds.), *Bericht über den 37. Kongreß der Deutschen Gesellschaft für Psychologie* (pp. 258-261). Göttingen: Hogrefe.
- Klimesch, W., & Pfurtscheller, G. (1991). Zur Lokalisation episodischer und semantischer Information. In F. Klix, E. Roth & E. van der Meer (Eds.), *Kognitive Prozesse und geistige Leistung* (pp. 30-40). Berlin: Deutscher Verlag der Wissenschaften.
- Klimesch, W., Schimke, H., & Pfurtscheller, G. (1991). Alpha frequency, alpha blocking, and individual differences in a memory task [Abstract]. *Journal of Psychophysiology*, 5, 112.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Pfurtscheller, G., & Klimesch, W. (1991). Event-related desynchronization during motor behavior and visual information processing. In C.H.M. Brunia, G. Mulder & M.N. Verbaten (Eds.), *Event-Related Brain Research* (pp. 58-65). Amsterdam: Elsevier.
- Klimesch, W., Pfurtscheller, G., & Schimke, H. (1992). Pre- and poststimulus processes in category judgement tasks as measured by event-related desynchronization (ERD). *Journal of Psychophysiology*, 6, 186-203.
- Kroll, N.E.A., & Klimesch, W. (1992). Semantic memory: Complexity or connectivity? *Memory & Cognition*, 20, 192-210.
- Panksepp, J., Klimesch, W., Nelson, E., & Nocjar, C. (1992). Effects of amantadine on play and other social emotional processes [Abstract]. *Annual Meeting of the Society for Neuroscience, Anaheim, California, 25.-30. Okt. 1992: Abstract Guide*.
- Pfurtscheller, G., & Klimesch, W. (1992). Event-related synchronization and desynchronization of alpha and beta waves in a cognitive task. In E. Basar & T. H. Bullock (Eds.), *Induced rhythms in the brain* (pp. 117-128). Boston: Birkhäuser.
- Pfurtscheller, G., & Klimesch, W. (1992). Functional topography during a visuoverbal judgement task studied with event-related desynchronization mapping. *Journal of Clinical Neurophysiology*, 9, 120-131.
- Wranek, U., Ladurner, G., & Klimesch, W. (1992). P300 und Demenz: Diagnostische Relevanz II. *Zeitschrift für EEG und EMG*, 23, 67-74.
- Klimesch, W. (1993). Ergebnisse der Gedächtnisforschung und ihre Anwendung auf unterrichtswissenschaftliche Fragen. In G. Lobin & W.D. Ekkehard Bink (Eds.), *Kybernetik und Bildung V* (pp. 57-66). Berlin: Eigenverlag des Instituts für Kybernetik Berlin & Paderborn.
- Klimesch, W., Pfurtscheller, G., & Schimke, H. (1993): ERD - Attentional and cognitive processes in the upper and lower alpha band [Abstract]. *Electroencephalography & Clinical Neurophysiology*, 87, 133.
- Klimesch, W., Schimke, H., & Pfurtscheller, G. (1993). Alpha frequency, cognitive load, and memory performance. *Brain Topography*, 5, 241-251.
- Klimesch, W. (1994). *The structure of long-term memory: A connectivity model for semantic processing*. Hillsdale, NJ: Lawrence Erlbaum.
- Klimesch, W. (1994). The ignition of cortical cell assemblies: Some arguments against the assumption of a selective increase in gamma band power. *Psychology*, 94.5.58.brain-rhythms.4.klimesch. Retrieved from <http://psycprints.ecs.soton.ac.uk/perl/local/psyc/makedoc?id=417&type=html>

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Klimesch, W., Schimke, H., & Schwaiger, J. (1994). Episodic and semantic memory: An analysis in the EEG-theta and alpha band. *Electroencephalography & Clinical Neurophysiology*, 91, 428-441.
- Doppelmayr, M., & Klimesch, W. (1995). Decomposing the EEG alpha band: Differential effects in selected 1 Hz bands [Abstract]. *European Journal of Neuroscience*, 8 (Suppl.), 83.
- Klimesch, W. (1995). Gedächtnispsychologische Repräsentationsannahmen und ihre möglichen neuronalen Grundlagen. In D. Dörner & E. van der Meer (Eds.), *Das Gedächtnis* (pp. 3-18). Göttingen: Hogrefe.
- Klimesch, W. (1995). Memory processes described as brain oscillations in the EEG-alpha and theta band. *Psycology.95.6.06.memory-brain.1.klimesch*. Retrieved from <http://psycprints.ecs.soton.ac.uk/archive/00000453/>
- Klimesch, W. (1995). The P300 wave and band power in the alpha and theta range. *Psycology.95.6.44.memory-brain.5.klimesch*. Retrieved from <http://www.cogsci.ecs.soton.ac.uk/cgi/psyc/newpsy?6.45>
- Klimesch, W. (1995). Monitoring processes and the P300: How novel is a novel stimulus? *Psycology.95.6.44.memory-brain.6.klimesch*. Retrieved from <http://www.cogsci.ecs.soton.ac.uk/cgi/psyc/newpsy?article=6.44&submit=View+Article>
- Klimesch, W. (1995). The functional meaning of reverberations for sensoric and contextual encoding. *Behavioral and Brain Sciences*, 18, 635-636.
- Klimesch, W., Schimke, H., Doppelmayr, M., & Ripper, B. (1995). Individual differences in alpha frequency, alpha power, and memory performance [Abstract]. *Journal of Psychophysiology*, 9, 169.
- Lensing, P., Schimke, H., Klimesch, W., Pap, V., Szemes, G., Klingler, D., & Panksepp, J. (1995). Clinical case report: Opiate antagonist and event-related desynchronization in 2 autistic boys. *Neuropsychobiology*, 31, 16-23.
- Ripper, B., Klimesch, W., & Schimke, H. (1995). Event-related desynchronization (ERD): Effects of individually determined bandwidths [Abstract]. *Journal of Psychophysiology*, 9 (4), 366.
- Schimke, H., & Klimesch, W. (1995). Analysis in the EEG-alpha and theta band: Methodological aspects [Abstract]. *Journal of Psychophysiology*, 9 (4), 371.
- Klimesch, W. (1996) Memory processes, brain oscillations and EEG synchronization. *International Journal of Psychophysiology*, 24, 61-100.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Klimesch, W. (1996). Netzwerktheorien der Informationsspeicherung. In H. Markowitsch (Ed.), *Enzyklopädie der Psychologie; Themenbereich C, Theorie und Forschung; Serie I Biologische Psychologie, Grundlagen der Neuropsychologie* (Band 1, pp. 725 - 770). Göttingen: Hogrefe.
- Klimesch, W., Doppelmayr, M., Russegger, H., & Pachinger, T. (1996). Theta band power in the human scalp EEG and the encoding of new information. *NeuroReport*, 7, 1235 - 1240.
- Klimesch, W., Doppelmayr, M., Schimke, H., & Pachinger, T. (1996). Alpha frequency, reaction time and the speed of processing information. *Journal of Clinical Neurophysiology*, 13 (6), 511-518.
- Klimesch, W., Schimke, H., Doppelmayr, M., Ripper, B., Schwaiger, J., & Pfurtscheller, G. (1996). Event-related desynchronization (ERD) and the Dm effect: Does alpha desynchronization during encoding predict later recall performance? *International Journal of Psychophysiology*, 24, 47 -60.
- Doppelmayr, M., & Klimesch, W. (1997). Event-related desynchronization (ERD) and the encoding of new information. In H. Witte, U. Zwiener, B. Schack, A. Doering (Eds.), *Quantitative and topological EEG and MEG analysis* (pp. 368-369). Erlangen: Druckhaus Mayer Verlag GmbH Jena.
- Doppelmayr, M., & Klimesch, W. (1997). Event-related desynchronization (ERD), absolute power, and the selection of frequency bands [Abstract]. *Electroencephalography and Clinical Neurophysiology*, 103 (3), 154.
- Klimesch, W. (1997). EEG-alpha rhythms and memory processes. *International Journal of Psychophysiology*, 26, 319-340.
- Klimesch, W., & Doppelmayr M. (1997). Upper alpha desynchronization, semantic memory, and task difficulty [Abstract]. *Journal of Psychophysiology*, 11 (4), 373-374.
- Klimesch, W., Doppelmayr, M., Pachinger, T., & Ripper, B. (1997). Brain oscillations and human memory: EEG correlates in the upper alpha and theta band. *Neuroscience Letters*, 238, 9-12.
- Klimesch, W., Doppelmayr, M., Pachinger, T., & Russegger, H. (1997). Event-related desynchronization in the alpha band and the processing of semantic information. *Cognitive Brain Research*, 6 (2), 83-94.
- Klimesch, W., Doppelmayr, M., Schimke, H., & Ripper, B. (1997). Theta synchronization and alpha desynchronization in a memory task. *Psychophysiology*, 34, 169-176.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Doppelmayr, M., & Klimesch, W. (1998). Event-related desynchronization (ERD) during encoding and retrieval of semantic information. *International Journal of Psychophysiology*, 30 (1-2), 50.
- Doppelmayr, M., Klimesch, W., & Russegger, H. (1998). Eine Methode zur Berechnung von induzierter Bandpower (IBP) im EEG. In J. Glück, O. Vitouch, M. Jirasko, & B. Rollett (Eds.), *Perspektiven psychologischer Forschung in Österreich* (Band 2, pp. 99-102). Wien: WUV, Universitätsverlag.
- Doppelmayr, M., Klimesch, W., Pachinger, T., & Ripper, B. (1998). Individual differences in brain dynamics: Important implications for the calculation of event-related band power. *Biological Cybernetics*, 79, 49-57.
- Doppelmayr, M., Klimesch, W., Pachinger, T., & Ripper, B. (1998). The functional significance of absolute power with respect to event-related desynchronization. *Brain Topography*, 11 (2), 133-140.
- Doppelmayr, M., Klimesch, W., Schwaiger, J., Auinger, P., & Winkler, T. (1998). Theta synchronization in the human EEG and episodic retrieval. *Neuroscience Letters*, 257, 41-44.
- Klimesch W. (1998). Gedächtnis: Ätiologie/Bedingungsanalyse. In U. Baumann & M. Perrez (Eds.), *Lehrbuch klinische Psychologie* (2. Auflage, pp. 583-592). Bern: Hans Huber.
- Klimesch W. (1998). Gedächtnis: Klassifikation und Diagnostik. In U. Baumann & M. Perrez (Eds.), *Lehrbuch klinische Psychologie* (2. Auflage, pp. 574-582). Bern: Hans Huber.
- Klimesch, W., & Schimke, H. (1998). Psychophysiologische Voraussetzungen für Intelligenzleistungen. In E. Roth (Ed.), *Intelligenz, Grundlagen und neuere Forschung* (pp. 144-160). Stuttgart: Kohlhammer.
- Klimesch, W., Doppelmayr, M., Pachinger, T., Russegger, H., & Schwaiger, J. (1998). Functional correlates of alpha desynchronization [Special Issue]. *Journal of Cognitive Neuroscience*, 116.
- Klimesch, W., Doppelmayr, M., Russegger, H., Pachinger, T., & Schwaiger, J. (1998). Induced alpha band power changes in the human EEG and attention. *Neuroscience Letters*, 244, 73-76.
- Klimesch, W., Russegger, H., Doppelmayr, M., & Pachinger, T. (1998). A method for the calculation of induced band power: Implications for the significance of brain oscillations. *Electroencephalography and clinical Neurophysiology*, 108 (2), 123-130.
- Vogt, F., Klimesch, W., & Doppelmayr, M. (1998). High frequency components in the alpha band and memory performance. *Journal of Clinical Neurophysiology*, 15 (2), 167-172.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Klimesch, W. (1999). Auditorily elicited EEG desynchronization and synchronization: A review of Christina M. Krause's doctoral thesis. *Scandinavian Journal of Psychology*, 40, 329-231.
- Klimesch, W. (1999). Brain function and oscillations II: Integrative brain function. Neurophysiology and cognitive processes by Erol Basar [Review of the book *Brain function and oscillations II: Integrative brain function. Neurophysiology and cognitive processes*]. *Trends in Cognitive Science*, 3 (6), 243.
- Klimesch, W. (1999). EEG alpha and theta oscillations reflect cognitive and memory performance: A review and analysis. *Brain Research Reviews*, 29, 169-195.
- Klimesch, W. (1999). Event-related band power changes and memory performance. In G. Pfurtscheller & F. Lopes da Silva (Eds.), *Handbook of Electroencephalography and Clinical Neurophysiology, Event-Related Desynchronization* (Volume 6, pp. 161- 178). Amsterdam: Elsevier.
- Klimesch, W., Doppelmayr, M., Schwaiger, J., Auinger, P., & Winkler, T. (1999). 'Paradoxical' alpha synchronization in a memory task. *Cognitive Brain Research*, 7, 493-501.
- Doppelmayr, M., & Klimesch, W. (2000). Interindividual differences in EEG frequencies and their functional meaning for ERD analyses [Abstract]. *Brain Topography*, 12, 296.
- Doppelmayr, M., Klimesch, W., & Stadler, W. (2000). Significant correlations of IQ and memory scores with EEG power values [Abstract]. *Journal of Psychophysiology*, 14 (Suppl.), 30-31.
- Doppelmayr, M., Klimesch, W., Schwaiger, J., Stadler, W., & Röhms, D. (2000). The time locked theta response reflects interindividual differences in human memory performance. *Neuroscience Letters*, 278, 141-144.
- Klimesch, W. (2000). EEG alpha and cognitive processes. In R. Miller (Ed.), *Time and the Brain: Conceptual Advances in Brain Research Series*, (pp. 203-223). London: Harwood academic publishers.
- Klimesch, W. (2000). Theta frequency, synchronization and episodic memory performance. In R. Miller (Ed.), *Time and the Brain: Conceptual Advances in Brain Research Series* (pp. 225-239). London: Harwood academic publishers.
- Klimesch, W., & Doppelmayr, M. (2000). Alpha oscillations and the inhibition of sensory-semantic memory [Abstract]. *International Journal of Psychophysiology*, 35 (1), 8.
- Klimesch, W., Doppelmayr, M., Röhms, D., Pöllhuber, D., & Stadler, W. (2000). Simultaneous desynchronization and synchronization of different alpha responses in the human electroencephalograph: a neglected paradox? *Neuroscience Letters*, 284, 97-100.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Klimesch, W., Doppelmayr, M., Schwaiger, J., Winkler, T., & Gruber, W. (2000). Theta oscillations and the ERP old/new effect: independent phenomena? *Clinical Neurophysiology*, *111*, 781-793.
- Klimesch, W., Vogt, F., & Doppelmayr, M. (2000). Interindividual differences in alpha and theta power reflect memory performance. *Intelligence*, *27* (4), 347-362.
- Doppelmayr, M., & Klimesch, W. (2001). Correlating EEG alpha power and intelligence. Congress abstract, *Brain Topography*, *13* (4), 318.
- Klimesch, W. (2001). Von der kognitiven zur biologischen Psychologie. Psychologie 2000: Hundert Jahre deutschsprachige Psychologie- Rückblick und Ausblick (Teil 4). *Zeitschrift für Psychologie*, *209*, 17-33.
- Klimesch, W., Doppelmayr, M., Stadler, W., Pöllhuber, D., Sauseng, P., & Röhms, D. (2001). Episodic retrieval is reflected by a process specific increase in human electroencephalographic theta activity. *Neuroscience Letters*, *302*, 49-52.
- Klimesch, W., Doppelmayr, M., Wimmer, H., Gruber, W., Röhms, D., Schwaiger, J., & Hutzler, F. (2001). Alpha and beta band power changes in normal and dyslectic children. *Clinical Neurophysiology*, *112*, 1186-1195.
- Klimesch, W., Doppelmayr, M., Wimmer, H., Schwaiger, J., Röhms, D., Gruber, W., & Hutzler, F. (2001). Theta band power changes in normal and dyslectic children. *Clinical Neurophysiology*, *112*, 1174-1185.
- Klimesch, W., Doppelmayr, M., Yonelinas, A., Kroll, N.E.A., Lazzara, M., Röhms, D., & Gruber, W. (2001). Theta synchronization during episodic retrieval: neural correlates of conscious awareness. *Cognitive Brain Research*, *12*, 33-38.
- Röhms, D., Klimesch, W., Haider, H., & Doppelmayr, M. (2001). The role of theta and alpha oscillations for language comprehension in the human electroencephalogram. *Neuroscience Letters*, *310*, 137-140.
- Anderer, P., Gruber, G., Kölsch, G., Klimesch, W., Saletu, B., & Zeitlhofer, J. (2002). Sleep and memory consolidation: The role of electrophysiological neuroimaging. *Somnologie*, *6*, 54-62.
- Doppelmayr, M., Klimesch, W., Sauseng, P., & Gruber, W. (2002). Task Performance and Intelligence in a Recognition Paradigm. An EEG study [Congress Abstract]. *Brain Topography*, *14* (4), 352-353.
- Doppelmayr, M., Klimesch, W., Sauseng, P., & Hödlmoser, K. (2002). Differences in bandpowerchanges according to the performance in an intelligence test [Abstract]. Congress abstract: *International Journal of Psychophysiology*, *45*, 86.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Doppelmayr, M., Klimesch, W., Stadler, W., Pöllhuber, D., & Heine, C. (2002). EEG alpha power and intelligence. *Intelligence*, 30, 289-302.
- Sauseng, P., Klimesch, W., Gruber, W., Doppelmayr, M., Stadler, W., & Schabus, M. (2002). The interplay between theta and alpha oscillations in the human electroencephalogram reflects the transfer of information between memory systems. *Neuroscience Letters*, 324, 121-124.
- Schack, B., & Klimesch, W. (2002). Frequency characteristic of evoked and oscillatory electroencephalographic activity in a human memory scanning task. *Neuroscience Letters*, 331, 107-110.
- Doppelmayr, M., & Klimesch, W. (2003). EEG and Intelligence. *Journal of Neurotherapy*, 7 (1), 45 – 46.
- Doppelmayr, M., Hödlmoser, K., Schabus, M., & Klimesch, W. (2003). ERD changes in different frequency bands during the performance of an intelligence task [Abstract]. *Acta Neurobiologiae Experimentalis*, 63 (Suppl.), 22.
- Doppelmayr, M., Klimesch, W., Hödlmoser, K., & Sauseng, P. (2003). Bandpower changes during the performance of an intelligence test [Abstract]. *Journal of Psychophysiology*, 17 (Suppl.), 41.
- Doppelmayr, M., Klimesch, W., Sauseng, P., Hödlmoser, K., & Rachbauer, D. (2003). EEG Bandpowerchanges during the performance of an intelligence task. *Brain Topography*, 15 (4), 263.
- Doppelmayr, M., Stadler, W., Sauseng, P., Rachbauer, D., & Klimesch, W. (2003). Gender-related differences in theta bandpower changes of the EEG during the presentation of erotic and child related stimuli. Short Report, *Brain and Cognition*, 51, 166-168.
- Halberg, F., Cornelissen, G., Bingham, C., Witte, H., Ribary, U., Hesse, W., Petsche, H., Engebretson, M., Geissler, HG., Weiss, S., Klimesch, W., Rappelsberger, P., Katinas G., & Schwartzkopf, O. (2003). Chronomics: imaging in time by phase synchronization reveals wide spectral-biospheric resonances beyond short rhythms. *Neuroendocrinology Letters*, 24 (5), 355-380.
- Hanslmayr, S., Sauseng, P., Doppelmayr, M., & Klimesch, W. (2003). Enhancing cognitive performance by neurofeedback. *Journal of Psychophysiology*, 17 (Suppl.), 47.
- Klimesch, W. (2003). EEG theta, memory and sleep. In J. Polich (ed.). *Detection of change: Event-related potential and fMRI findings* (pp.149-165). Kluwer Academic Press: Boston.
- Klimesch, W. (2003). Interindividual differences in oscillatory EEG activity and cognitive performance. In I. Reinvang, M.W. Greenlee, & M. Herrmann (Eds.), *The Cognitive*

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

Neuroscience of Individual Differences (pp. 87-99). Oldenburg: Bibliotheks- und Informationssystem (BIS).

Klimesch, W., & Schack, B. (2003). Activation of long-term memory by alpha oscillations in a working-memory task? *Behavioral and Brain Science*, 26 (6), 743.

Klimesch, W., Sauseng, P., & Gerloff, Ch. (2003). Enhancing cognitive performance with repetitive transcranial magnetic stimulation at human individual alpha frequency. *European Journal of Neuroscience*, 17, 1129-1133.

Martinek, L., Oberascher-Holzinger, K., Weishuhn, S., Klimesch, W., & Kerschbaum, H. (2003). Anticipated academic examinations induce distinct cortisol responses in adolescent pupils. *Neuroendocrinology Letters*, 24 (6), 437-441.

Rachbauer, D., Labar, K.S., Doppelmayr, M., & Klimesch, W. (2003). Increased event-related theta activity during emotional scene encoding. Short Report, *Brain & Cognition*, 51, 186-187.

Röhm, D., Haider, H., & Klimesch, W. (2003). Gehirnoszillationen und Sprache: EEG-Bandpower-Veränderungen bei Sprachverarbeitungsprozessen. In H.M. Müller, & G. Rickheit (Eds.), *Neurokognition der Sprache* (pp. 259-286). Tübingen: Stauffenburg Verlag.

Sauseng, P., Klimesch, W., & Gerloff, Ch. (2003). rTMS at EEG alpha frequency improves performance in a mental rotation task. *Brain Topography*, 15, 200-201.

Klimesch, W., Schabus, M., Doppelmayr, M., Gruber, W., & Sauseng, P. (2004). Evoked oscillations and early components of event related potentials: An analysis. *International Journal of Bifurcation and Chaos*, 14 (2), 705-718.

Klimesch, W., Schack, B., Schabus, M., Doppelmayr, M., Gruber, W., & Sauseng, P. (2004). Phase locked alpha and theta oscillations generate the P1-N1 complex and are related to memory performance. *Cognitive Brain Research*, 19, 302-316.

Sauseng, P., Klimesch, W., Doppelmayr, M., Hanslmayr, S., Schabus, M., & Gruber, W. (2004). Theta coupling in the human electroencephalogram during a working memory task. *Neuroscience Letters*, 354, 123-126.

Schabus, M., Gruber, G., Sauter, C., Zeitlhofer, J., & Klimesch, W. (2004). Sleep spindles and their significance for declarative memory consolidation. *Sleep*, 27 (8), 1479-1485.

Woertz, M., Pfurtscheller, G., & Klimesch, W. (2004). Alpha power dependent light stimulation: dynamics of event-related desynchronization. *Cognitive Brain Research*, 20 (7), 256-260.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Bergmann, J., Hutzler, F., Klimesch, W., & Wimmer, H. (2005). How is dysfluent reading reflected in the ERP? *Journal of Neurolinguistics*, 18, 153-165.
- Doppelmayr, M., Klimesch, W., Hödlmoser, K., Sauseng, P., & Gruber, W. (2005). Intelligence related upper alpha desynchronization in a semantic memory task. *Brain Research Bulletin*, 66 (2), 171-177.
- Doppelmayr, M., Klimesch, W., Sauseng, P., Hödlmoser, K., Stadler, W., & Hanslmayr, S. (2005). Intelligence related differences in EEG-bandpower. *Neuroscience Letters*, 381, 309-313.
- Gruber, W., Klimesch, W., Sauseng, P., & Doppelmayr, M. (2005). Alpha phase synchronization predicts P1 and N1 latency and amplitude size. *Cerebral Cortex*, 15, 371-377.
- Hanslmayr, S., Klimesch, W., Sauseng, P., Gruber, W., Doppelmayr, M., Freunberger, R., & Pecherstorfer, T. (2005). Visual discrimination performance is related to decreased alpha amplitude but increased phase locking. *Neuroscience Letters*, 375, 64-68.
- Hanslmayr, S., Sauseng, P., Doppelmayr, M., Schabus, M., & Klimesch, W. (2005). Increasing individual upper alpha power by neurofeedback improves cognitive performance in human subjects. *Applied Psychophysiology and Biofeedback*, 30 (1), 1-10.
- Klimesch, W. (2005). Verantwortung und Persönlichkeit aus psychobiologischer Sicht. In H. Schmidinger & C. Sedmak (Eds.), *Der Mensch – ein freies Wesen? Autonomie-Persönlichkeit-Verantwortung* (pp. 125-134). Darmstadt: Wissenschaftliche Buchgesellschaft.
- Klimesch, W., Schack, B., & Sauseng, P. (2005). The functional significance of theta and upper alpha oscillations. *Experimental Psychology*, 52 (2), 99-108.
- Müller, V., Werkle-Bergner M., Gruber W., Klimesch W., Brehmer Y., von Oertzen T., Li S-C., & Lindenberger U. (2005). Lifespan age differences in cortical activity during an auditory oddball task. *Journal of Psychophysiology*, 19 (2), 134.
- Sauseng, P., Klimesch, W., Doppelmayr, M., Pecherstorfer, T., Freunberger, R., & Hanslmayr, S. (2005). EEG alpha synchronization and functional coupling during top-down processing in a working memory task. *Human Brain Mapping*, 26, 148-155.
- Sauseng, P., Klimesch, W., Schabus, M., & Doppelmayr, M. (2005). Fronto-parietal EEG coherence in theta and upper alpha reflect central executive functions of working memory. *International Journal of Psychophysiology*, 57, 97-103.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Sauseng, P., Klimesch, W., Stadler, W., Schabus, M., Doppelmayr, M., Hanslmayr, S., Gruber, W.R., & Birbaumer, N. (2005). A shift of visual spatial attention is selectively associated with human EEG alpha activity. *European Journal of Neuroscience*, 22, 2917-2926.
- Schack, B., Klimesch, W., & Sauseng P. (2005). Phase synchronization between theta and upper alpha oscillations in a working memory task. *International Journal of Psychophysiology*, 57, 105-114.
- Berner, I., Schabus, M., Wienerroither, T., & Klimesch, W. (2006). The significance of sigma neurofeedback training on sleep spindles and aspects of declarative memory. *Applied Psychophysiology and Biofeedback*, 31 (2), 97-114.
- Freunberger, R., Klimesch, W. & Sauseng, P. (2006). Induced and evoked gamma and alpha power changes in a perception task [Abstract]. *Brain Topography*, 18 (3), 228.
- Hanslmayr, S., Klimesch, W., & Sauseng, P. (2006). Are ERPs generated by phase-resetting of ongoing oscillations? [Abstract]. *Brain Topography*, 18 (3), 228.
- Kerschbaum, H. H., Ruemer, M., Weissshuhn, S., & Klimesch, W. (2006). Gender-dependent differences in sensation seeking and social interaction are correlated with saliva testosterone titre in adolescents. *Neuroendocrinology Letters*, 27(3), 315-320.
- Klimesch, W. (2006). Binding principles in the theta frequency range. In H.D. Zimmer, A. Mecklinger, & U. Lindenberger (Eds.). *Handbook of binding and memory* (Chapter 5, pp. 115-144). Amsterdam: Elsevier.
- Klimesch, W., Doppelmayr, M., & Hanslmayr, S. (2006). Upper alpha ERD and absolute power: their meaning for memory performance. In C. Neuper & W. Klimesch (Eds.). *Progress in Brain Research: Vol. 159 Event-Related Dynamics of Brain Oscillations* (Chapter 10, pp. 151-165). Amsterdam: Elsevier.
- Klimesch, W., Hanslmayr, S., Sauseng, P., & Gruber, W. (2006). Distinguishing the evoked response from phase reset: A comment to Mäkinen et.al.. *Neuroimage*, 29, 808-811.
- Klimesch, W., Hanslmayr, S., Sauseng, P., Gruber, W., Brozinsky, C.J., Kroll, N.E.A., Yonelinas, A.P., & Doppelmayr, M. (2006). Oscillatory EEG correlates of episodic trace decay. *Cerebral Cortex*, 16 (2), 280-290.
- Neuper, C. & Klimesch, W. (Eds.). (2006). *Progress in Brain Research: Vol. 159 Event-Related Dynamics of Brain Oscillation*. Amsterdam: Elsevier.
- Sauseng, P., Klimesch, W., Freunberger, R., Pecherstorfer, T., Hanslmayr, S., & Doppelmayr, M. (2006). Relevance of EEG alpha and theta oscillations during task switching. *Experimental Brain Research*, 170, 295-301.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Schabus, M., Hödlmoser, K., Gruber, G., Sauter, C., Anderer, P., Klösch, G., Parapatits, S., Saletu, B., Klimesch, W., & Zeitlhofer, J. (2006). Sleep-spindle related activity in the human EEG and its RELATION to general cognitive and learning abilities. *European Journal of Neuroscience*, 23 (7), 1738-1746.
- Stadler, W., Klimesch, W., Pouthas, V., Ragot, R. (2006). Differential effects of the stimulus sequence on CNV and P300. *Brain Research*, 1123, 157-167.
- Stadler, W., Klimesch, W., Ragot, R., & Pouthas, V. (2006). The influence of the context on current processing [Abstract]. *Brain Topography*, 18 (3), 224.
- Freunberger, R., Klimesch, W., Doppelmayr, M., & Höller, Y. (2007). Visual P2 component is related to theta phase-locking. *Neuroscience Letters*, 426, 181–186.
- Freunberger, R., Klimesch, W., Doppelmayr, M., Sauseng, P. (2007). Oszillatorische Aktivität in einer visuellen Priming Aufgabe [Abstract]. *Klinische Neurophysiologie*, 38, 62-63.
- Freunberger, R., Klimesch, W., Sauseng, P., Griesmayr, B., Höller, Y., Pecherstorfer, T., & Hanslmayr, S. (2007). Gamma oscillatory activity in a visual discrimination task. *Brain Research Bulletin*, 71, 593-600.
- Hanslmayr, S., Aslan, A., Staudigl, T., Klimesch, W., Herrmann, C.S., & Bäuml, K.-H. (2007). Prestimulus oscillations predict visual perception performance between and within subjects. *Neuroimage*, 37, 1465-1473.
- Hanslmayr, S., Klimesch, W., Sauseng, P., Gruber, W., Doppelmayr, M., Freunberger, R., Pecherstorfer, T., & Birbaumer, N. (2007). Alpha phase reset contributes to the generation of ERPs. *Cerebral Cortex*, 17 (1), 1-8.
- Hummel F., Hummel, F., Sauseng, P., Hoppe, J., Klimesch, W., Gerloff, C. (2007). Context-related motor control implemented by modulation of cortical synchrony: A mechanism of successful context-related motor behavior [Abstract]. *Clinical Neurophysiology*, 118(4), e48-e49.
- Klimesch, W., Hanslmayr, S., Sauseng, P., Gruber, W., & Doppelmayr, M. (2007). The P1 and traveling alpha waves: Evidence for evoked oscillations. *Journal of Neurophysiology*, 97, 1311-1318.
- Klimesch, W., Sauseng, P., & Freunberger, R. (2007). Memory related EEG oscillations and top-down control [Abstract]. *Brain- Mind in Probabilistic Hyperspace*, Göttingen.
- Klimesch, W., Sauseng, P., & Hanslmayr, S. (2007). EEG alpha oscillations: The inhibition–timing hypothesis. *Brain Research Reviews*, 53, 63-88.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Klimesch, W., Sauseng, P., Hanslmayr, S., Gruber, W., & Freunberger, R. (2007). Event-related phase reorganization may explain evoked neural dynamics. *Neuroscience and Biobehavioral Reviews*, 31 (7), 1003-1016.
- Perrucci, M.G., Capotosto, P., Ebisch, S., Babiloni, C., Brunetti, M., Ferretti, A., Doppelmayr, M., Klimesch, W., Neuper, C., Neubauer, A., Pfurtscheller, G., Grabner R.H., Rossini, P.M., Del Gratta, C., Pizzetta, V., Romani, G.L. (2007). Relationship between neural efficiency and cortical theta-alpha rhythms: A simultaneous EEG-fMRI study. *NeuroImage*, 36, S85.
- Pletzer, B., Klimesch, W., Oberascher-Holzinger, K., & Kerschbaum, H. (2007). Corticosterone response in a resident-intruder paradigm depends on social state and coping style in adolescent male Balb-C mice. *Neuroendocrinology Letters*, 28(5), 585-590.
- Sauseng, P., Hoppe, W., Klimesch, W., Gerloff, C., & Hummel, F.C. (2007). Dissociation of sustained attention from central executive functions: local activity and interregional connectivity in the theta range. *European Journal of Neuroscience*, 25, 587–593.
- Sauseng, P., Klimesch, W., Gruber, W.R., & Birbaumer, N. (2007) When attention meets working memory: Shifted visuo-spatial attention amplifies theta:gamma phase synchronisation in the posterior parietal cortex [Abstract]. *Clinical Neurophysiology*, 118(4), e90.
- Sauseng, P., Klimesch, W., Gruber, W.R., Hanslmayr, S., Freunberger, R., Doppelmayr, M. (2007). Are ERP components generated by phase resetting of brain oscillations? A critical discussion. *Neuroscience*, 146, 1435-1444.
- Bäumli, K.-H., Hanslmayr, S., Pastötter, B., & Klimesch W. (2008). Oscillatory Correlates of Intentional Updating in Episodic Memory. *NeuroImage*, 41, 596-604.
- Freunberger, R., Höller, Y., Griesmayr, B., Gruber, W., Sauseng, P., & Klimesch W. (2008). Functional similarities between the P1 component and alpha oscillations. *European Journal of Neuroscience*, 27, 2330–2340.
- Freunberger, R., Klimesch W., Griesmayr, B., Sauseng, P., & Gruber, W. (2008). Alpha phase coupling reflects object recognition. *NeuroImage*, 42, 928-935.
- Hanslmayr, S., Pastötter, B., Bäumli, K.-H., Gruber, S., & Klimesch, W. (2008). The electrophysiological dynamics of interference during the stroop task. *Journal of Cognitive Neuroscience*, 20, 215-225.
- Hoedlmoser, K., Pecherstorfer, T., Gruber, G., Anderer, P., Doppelmayr, M., Klimesch, W., & Schabus, M. (2008). Instrumental conditioning of human sensorimotor rhythm (12-15 Hz) and its impact on sleep as well as declarative learning. *Sleep*, 31(10), 1401-1408.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Holz, E.M., Doppelmayr, M., Klimesch, W., & Sauseng, P. (2008). EEG correlates of action observation in humans. *Brain Topography*, 21(2), 93-99.
- Klimesch, W., Freunberger, R., Sauseng, P., & Gruber, W. (2008). A short review of slow phase synchronisation and memory: Evidence for control processes in different memory systems?. *Brain Research*, 1235, 31-44.
- Sauseng, P. & Klimesch, W. (2008). What does phase information of oscillatory brain activity tell us about cognitive processes?. *Neuroscience & Biobehavioral Reviews*, 32(5), 1001-1013.
- Sauseng, P., Klimesch, W., Gruber, W., & Birbaumer, N. (2008). Cross-frequency phase synchronization: A brain mechanism of memory matching and attention. *Neuroimage*, 40, 308-317.
- Schabus, M., Hödlmoser, K., Pecherstorfer, T., Anderer, P., Gruber, G., Parapatics, S., Sauter, C., Kloesch, G., Klimesch, W., Saletu, B., & Zeitlhofer, J. (2008). Interindividual sleep spindle differences and their relation to learning-related enhancements. *Brain Research*, 1191, 127-135.
- Capotosto, P., Perrucci, M. G., Brunetti, M., Del Gratta, C., Doppelmayr, M., Grabner, R. H., Klimesch, W., Neubauer, A., Neuper, C., Pfurtscheller, G., Romani, G. L., & Babiloni, C. (2009). Is there "neural efficiency" during the processing of visuo-spatial information in male humans? An EEG study. *Behavioural Brain Research*, 205, 468-474.
- Freunberger, R., Fellingner, R., Sauseng, P., Gruber, W., & Klimesch, W. (2009). Dissociation between phase-locked and nonphase-locked alpha oscillations in a working memory task. *Human Brain Mapping*, 30, 3417-3425.
- Klimesch, W. & Sauseng, P. (2009). Oscillatory brain activity: Possible mechanisms for the control and organization of cognitive processing [Abstract]. *Psychophysiology*, 56(Suppl.1), S21-S22.
- Klimesch, W., Sauseng, P. & Gruber, W. (2009). The functional relevance of phase reset A comment to Risner et al. (2009): The visual evoked potential of surface alpha rhythm phase. *NeuroImage*, 47, 5-7.
- Müller, V., Gruber, W., Klimesch, W., & Lindenberger, U. (2009). Lifespan differences in cortical dynamics of auditory perception. *Developmental Science*, 12(6), 839-853.
- Sauseng, P., Klimesch, W., Gerloff, C., & Hummel F.C. (2009). Spontaneous locally restricted EEG alpha activity determines cortical excitability in the motor cortex. *Neuropsychologia*, 47, 284-288.

Publications

Univ.-Prof. Dr. Wolfgang Klimesch

- Sauseng, P., Klimesch, W., Heise, K.F., Gruber, W., Holz, E., Karim, A.A., Glennon, M., Gerloff, C., Birbaumer, N., & Hummel, F.C. (2009). Brain oscillatory substrates of visual short-term memory capacity. *Current Biology*, 19 (21), 1846-1852.
- Griesmayr, B., Gruber, W., Klimesch, W., & Sauseng, P. (2010). Human frontal midline theta and its synchronization to gamma during a verbal delayed match to sample task. *Neurobiology of Learning and Memory*, 93 (2), 208-215.
- Klimesch, W., Freunberger, R., & Sauseng, P. (2010). Oscillatory mechanisms of process binding in memory. *Neuroscience and Biobehavioral Reviews*, 34, 1002-1014.
- Mecklinger, A., Zimmer, H., & Klimesch, W. (2010). Binding processes: Neurodynamics and functional role in memory and action. *Neuroscience and Biobehavioral Reviews*, 34, 979–980.
- Pletzer, B., Kerschbaum, H. & Klimesch, W. (2010). When frequencies never synchronize: The golden mean and the resting EEG. *Brain Research*, 1335, 91–102.
- Sauseng, P., Griesmayr, B., Freunberger, R., & Klimesch, W. (2010). Control mechanisms in working memory: A possible function of EEG theta oscillations. *Neuroscience and Biobehavioral Reviews*, 34, 1015–1022.
- Freunberger, R., Werkle-Bergner, M., Griesmayr, B., Lindenberger, U. & Klimesch, W. (2011). Brain oscillatory correlates of working memory constraints. *Brain Research*, 1375, 93-102.