**Poster session 1 (June 17th)**

**Dendrites and behavior**

**P1-1** Asymmetry in whisker position predicts decision-making in mice solving a plus maze  
 **S. Dominiak, M. Nashaat, K. Sehara, H. Oraby, M. Larkum,**

**R. Sachdev**

**P1-2** Simultaneous dual-color imaging of glutamate and calcium signals in apical and basal dendrites of mouse visual cortical neurons in vivo  
 **D. Herrmann, M. Fisek, M. Häusser**

**P1-3** A new world monkey, the common marmoset (Callithrix jacchus), demonstrates autistic behavior and higher spine dendritic structure density after valproic acid administration in utero  
 **N. Ichinohe**

**P1-4** Calcium imaging of L5 pyramidal cell dendrite activity in mouse barrel cortex during a texture discrimination task  
 **G. Schoenfeld, S. Valavanis, F. Helmchen**

**P1-5** Experience-dependent modulation of cortical dendritic activity across wake and sleep  
 **J. Sigl-Glöckner, N. Takahashi, C. J. Richard, M. Larkum, J. Seibt**

**P1-6** Nucleus reuniens to CA1 projections affect extinction of contextual fear memory  
 **M. Ziółkowska, A. Cały, A. Gorule, M. A. Śliwińska, M. Robacha,**

**K. Łukasiewicz, M. Nalberczak-Skóra, K. Radwańska**

**Dendrites and Circuit Computations**

**P1-7** Stability and plasticity of hippocampal representation in CA3 – linking dendritic activity with population dynamics  
 **S. Rashid, M. Dufour, R. Zemla, J. Basu**

**P1-8** Investigating the contribution of dendrites in pattern completion by means of computational modelling  
 **M. Pagkalos, S. Chavlis, P. Poirazi**

**P1-9** Cross-area mismatch responses in dendritic cortical microcircuits **R. P. Costa, J. Sacramento, Y. Bengio, W. Senn**

**P1-10** Continuous learning in dendritic cortical microcircuits using Lagrangian mechanics  
 **D. Dold, J. Sacramento, M. A. Petrovici, J. Binas, Y. Bengio, W. Senn**

**P1-11** Structured connectivity and dendritic nonlinearities support multiple stable states in a model network of the prefrontal cortex  
 **S. S. Stefanou, A. Papoutsi, P. Poirazi**

**P1-12** Dendritic gating for generative cortical microcircuits  
 **A. Schwaninger, W. Wybo, W. Senn**

**P1-13** Social memory in CA2 hippocampal area through the eyes of computational modelling  
 **T. Tamiolakis, S. Chavlis, P. Poirazi**

**P1-14** Sexual dimorphic regulation of prefrontal cortical function by corticotropin-releasing factor and restraint stress  
 **A. Velli, K. Chalkiadaki, M-I Vynichaki, A. Koutsoumani, A. Chatzaki,**

**K. Sidiropoulou**

**P1-15** Unraveling mechanisms underlying stimulus-specific adaptation using realistically reconstructed neocortical microcircuit  
 **O. Amsalem, J. King, M. Reimann, E. Muller, H. Markram, I. Segev**

**Dendrites and machine learning**

**P1-16** Excitability-dependent memory linking in deep neural networks

**G. Kastellakis, P. Poirazi**

**P1-17** Differential polarization of cortical pyramidal neuron dendrites through weak extracellular fields  
 **F. Aspart, M. W.H. Remme, K. Obermayer**

**P1-18** The dendritic Ca2+ and K+ currents associated with the climbing fibre synaptic potential in the cerebellar Purkinje neuron  
 **L. Filipis, K. Ait Ouares, A. Tzilivaki, P. Poirazi, M. Canepari**

**P1-19** Inter-areal coordination and laminar specialization in mouse visual cortex  
 **M. Fisek, D. Herrmann, A. E. Weiss, L. Tai-Ying, M. Hausser**

**P1-20** TTYH1 overexpression contributes to pyramidal neuron morphogenesis and susceptibility for epileptogenesis in PTZ-induced kindling  
 **M. Gorniak-Walas, S. Leski, K. Lukasiuk**

**P1-21** Voltage gated calcium channel activation by backpropagating action potentials downregulates NMDAR function  
 **A-K Theis, B. Rózsa, G. Katona, D. Schmitz, F. Johenning**

**P1-22** Intrinsic dendritic excitability of mature granule cells of the dentate gyrus  
 **J. Lopez-Rojas, M. Oule, M. R. Kreutz**

**P1-23** Gabab receptors differently control synaptic transmission between the dorsal and ventral ca1 rat hippocampal synapses  
 **G. Trompoukis,** **C. Papatheodoropoulos**

**P1-24** Diversity of dendritic spikes underlying complex spike bursting in CA3 pyramidal cells  
 **S. Raus Balind, N. Kis, Z. Varga-Nemeth, J. Makara**

**Dendritic computations**

**P1-25** Adrenergic modulation regulates dendritic excitability of L5 pyramidal neurons in vivo  
 **Y. Deitcher, C. Labarrera, A. Dudai, B. Weiner, A. K. Amichai,**

**N. Zylbermann, I. Segev, M. London**

**P1-26** Certainty-weighted multisensory integration by dendrites  
 **J. Jordan, J. Sacramento, W. Senn**

**P1-27** Methods for exploring synaptic threshold in active cables  
 **W. Kath**

**P1-28** The Biophysical Perceptron  
 **T. Moldwin, I. Segev**

**P1-29** A tale of two trees: modeling apical and basal tree contribution to L2/3 V1 pyramidal cell orientation selectivity  
 **K-E Petousakis, A. Papoutsi, P. Poirazi**

**P1-30** Impact of network oscillations on dendritic computation in hippocampal CA1 pyramidal neurons  
 **S. Rolotti, F. Sparks, H. Blockus, A. Losonczy**

**P1-31** Dendritic error backpropagation in multicompartmental neuron models  
 **D. Trpevski, J. Hellgren Kotaleski, W. Senn**

**P1-32** Dynamic compartmentalization in neurons enables branch-specific learning  
 **W. Wybo, B. Torben-Nielsen, M- Gewaltig**

**Poster session 2 (June 19th)**

**Interneurons**

**P2-1** Investigating the role of VIP+ interneurons in learning-related place cell dynamics in CA1 hippocampal subregion  
 **S. Chavlis, I. Pandi, P. Bozelos, W. Li, G. Turi, A. Losonczy, P. Poirazi**

**P2-2** Challenging the point neuron dogma: FS basket cells as 2-stage nonlinear integrators  
 **A. Tzilivaki, P. Poirazi**

**P2-3** Developmental changes in early postnatal inhibitory circuits of the prefrontal cortex

**K. Kalemaki, K. Sidiropoulou, D. Karagogeos**

**Molecular Processes in Dendrites**

**P2-4** Modelling actin dynamics in dendritic spines  
 **M. Bonilla-Quintana, C. Tetzlaff, M. Fauth, F. Wörgötter**

**P2-5** AlphaCaMKII controls correlation between the volume of dendritic spine and its postsynaptic density during synaptic plasticity  
 **M. Borczyk, M. Śliwińska, A. Caly, K. Radwanska**

**P2-6** A drift-diffusion model of mRNA localization and proteostasis  
 **Y. Fonkeu, N. Kraynyukova, A-S Hafner, L. Kochen, C. Glock,**

**E. Schuman, T. Tchumatchenko**

**P2-7** Exploring the effect of NE on dendritic Ca2+ spikes and plasticity   
 through knockdown of Alpha2A adrenoceptor in L5PCs

**A. Kaduri Amichai, N. Zylbermann, M. Groysman, M. London**

**P2-8** Angiomotin, a novel protein involved in organization of dendritic arbors  
 **K. Rojek, J. Krzemień, H. Doleżyczek, M. Rylski, L. Kaczmarek,**

**J. Jaworski, T. Prószyński**

**P2-9** The Impact of neuronal morphology on protein distribution in neuronal processes  
 **F. Sartori, A-S Hafner, A. Nold, Y. Fonkeu, E. Schuman,**

**T. Tchumatchenko**

**P2-10** Stress induced changes in S-palmitoylation and S-nitrosylation crosstalk  
 **M. Zaręba-Kozioł, A. Bartkowiak-Kaczmarek, I. Figiel, M. Bijata,**

**A. Krzystyniak, J. Włodarczyk**

**P2-11** Spontaneous activity and mitochondrial dynamics during synapse development  
 **C. Silva, C. Lohmann**

**Neurotechnology / Neuroinformatics**

**P2-12** A computational model of two-photon calcium imaging in spines and dendrites of CA1 pyramidal neurons using a genetically encoded calcium indicator **B. Schneiders,** **A. Abouzeid, W. Kath**

**P2-13** Improving the convergence of multiobjective optimization for morphologically realistic neuron models **A. Abouzeid, W. Kath**

**P2-14** Development of FRET-based biosensors to monitor the activity of actin regulators in dendritic spines  
 **M. Rosendale, Y. Hayashi, A. Moyawaki**

**P2-15** Engineering brain activity patterns for treatment of neurological disorders  
 **M. Yanik**

**Plasticity**

**P2-16** Learning-related plasticity of dendritic inhibition in

neocortical layer 1  
 **E. Abs, R. B. Poorthuis, K. Muhammad, I. Spiegel, J. J. Letzkus**

**P2-17** Plasticity mechanisms in layer 5 pyramidal neurons of the Anterior Cingulate Cortex  
 **L. Spierenburg, T. Nevian, W. Senn**

**P2-18** Influence of synapse position on dendritic learning with codependent synaptic plasticity

**E. Agnes, Tim Vogels**

**Synaptic Organization**

**P2-19** The role of dopamine in spine organization and learning  
 **R. Lindroos, K. Du, J. Hjorth, J. H. Kotaleski**

**P2-20** Balanced organization of excitatory and inhibitory synapses across L2/3 pyramidal neurons  
 **D. Iascone, M. Doron, I. Segev, F. Polleux**

**P2-21** Altered NMDA receptor phosphopattern modifies neuronal morphology and spine density in synaptopathy conditions  
 **M. Gómez de Salazar, C. Grau, S. Locubiche, C. Sindreu, F. Ciruela,**

**X. Altafaj**

**P2-22** Structured synaptic input to dendrites of cerebellar Purkinje cells  
 **A. Roth, M. Boznakova, S. Rieubland, M. Jakubowska, M. Hausser**

**Synaptic Plasticity**

**P2-23** A spike timing-dependent plasticity rule for single, clustered and distributed dendritic spines  
 **R. Araya, S. Tazerart, D. Mitchell, S. Miranda-Rottmann**

**P2-24** Interplay between serotonergic signaling and extracellular matrix in the regulation of synaptic plasticity  
 **M. Bijata**

**P2-25** Emergent organization of synapses on dendrites through simple plasticity rules  
 **T. Limbacher, W. Maass, R. Legenstein**

**P2-26** Layer- and frequency-dependent diversification in short-term synaptic plasticity along the septotemporal axis of the rat hippocampus  
 **A. Koutsoumpa,** **C. Papatheodoropoulos**

**P2-27** Short-term frequency-dependent synaptic plasticity transforms gradually along the dorsoventral axis of rat hippocampus  
 **V. Papaleonidopoulos, G. Trompoukis, A. Koutsoumpa,**

**C. Papatheodoropoulos**

**P2-28** Probabilistic synaptic plasticity induction due to stochastic gating of synaptic receptors  
 **R. Veltz, H. Marie, C. O'Donnell**