

若手奨励賞招待講演 Early Career Award in Biophysics Candidate Presentations

第1日目 (11月25日(金)) / Day 1 (Nov. 25 Fri.)

9:00~11:30 C会場/Room C: 中会議室 201/Conference Room 201

1YC 日本生物物理学会若手奨励賞選考会

Early Career Award in Biophysics Candidate Presentations

オーガナイザー: 男女共同参画・若手支援委員会

Organizer: Promotion of Gender Equality and Young Researchers Committee

Since 2005, Biophysical Society of Japan (BSJ) has granted “Early Career Award in Biophysics” to young BSJ members for their excellent presentations that show great potential to contribute to the progress of biophysics. In this 12th year, we received 42 highly qualified applications. After the first round of competitive screening based on submitted documents, the following eleven applicants, including one student member, were selected as the young invited speakers. In this symposium, each speaker will make 10-minute presentation followed by 3-minute discussion as the second round of screening. Up to five winners will be selected and announced at the banquet held in the evening of the second day. We welcome all the BSJ members to attend this symposium to foresee the future of biophysics in Japan through the speakers and their researches.

- 09:00:00 阿部 淳 3Pos013
1YC0900 シアノバクテリア時計タンパク質 KaiC の AFM 観察
AFM observation of a ring-shaped structure of KaiC
○阿部 淳, 向山 厚, 古池 美彦, 秋山 修志 (自然科学研究機構 分子科学研究所 協奏分子システム研究センター 階層分子システム解析研究部門)
Jun Abe, Atsushi Mukaiyama, Yoshihiko Furuike, Shuji Akiyama (Division of Trans-Hierarchical Molecular Systems, Research Center of Integrative Molecular Systems (CIMoS), Institute for Molecular Science (IMS))
- 09:13:30 太田 禎生 2Pos293
1YC0913 人知を超える超高速・高精度蛍光形態サイトメトリー
Ghost Cytometry: fluorescence “imaging” cytometry beyond human's limit
○太田 禎生^{1,2}, 野地 博行^{1,3} (1東大・工, 2科学技術振興機構さきがけ, 3科学技術振興機構ImPACT)
Sadao Ota^{1,2}, Hiroyuki Noji^{1,3} (1Sch. Eng., Univ. Tokyo, 2JST, PRESTO, 3JST, ImPACT)
- 09:27:00 木下 佳昭 2Pos154
1YC0927 高度高塩菌ハロバクテリウムサリナラムのべん毛の回転とステップ運動の直接観察
Direct observation of rotation and steps of the archaellum in the swimming halophilic archaeon Halobacterium salinarum
○木下 佳昭¹, 内田 就也², 中根 大介¹, 西坂 崇之¹ (1学習院大学 理・物理, 2東北大学 理・物理)
Yoshiaki Kinoshita¹, Nariya Uchida², Daisuke Nakane¹, Takayuki Nishizaka¹ (1Department of Physics, Gakushuin University, 2Department of Physics, Tohoku University)
- 09:40:30 寺島 浩行 3Pos174
1YC0940 細菌べん毛 III 型タンパク質輸送の *in vitro* 再構築
In vitro reconstitution of the bacterial flagellar type III protein export
○寺島 浩行¹, 川本 晃大², 巽 千夏¹, 難波 啓一^{2,3}, 南野 徹², 今田 勝巳¹ (1阪大・院理, 2阪大・院生命機能, 3理研 生命システム)
Hiroyuki Terashima¹, Akihiro Kawamoto², Chinatsu Tatsumi¹, Keiichi Namba^{2,3}, Tohru Minamino², Katsumi Imada¹ (1Grad. Sch. Sci., Osaka Univ., 2Grad. Sch. Front. Biosci., Osaka Univ., 3Quant. Bio. Cent., Riken.)
- 09:54:00 永井 健 1Pos285
1YC0954 様々な回転する自走粒子の集団運動
Collective motion of various kinds of rotating self-propelled particle
○永井 健¹, 住野 豊², Hugues Chaté^{3,4}, 大岩 和弘^{5,6}, 杉 拓磨⁷, 岩崎 秀雄⁸ (1北陸先端大・先端理工, 2東京理大・応物, 3CEA-Saclay, 4北京計算科学研, 5NICT・未来ICT, 6兵庫県大・院生命理工, 7滋賀医大・分子神経科学研, 8早稲田大・先端理工)
Ken Nagai¹, Yutaka Sumino², Chate Hugues^{3,4}, Kazuhiro Oiwa^{5,6}, Takuma Sugi⁷, Hideo Iwasaki⁸ (1Sch. Mater. Sci., JAIST, 2Dep. Appl. Phys., Tokyo Univ. Sci., 3CEA-Saclay, 4Beijing Comp. Sci. Res. Ctr., 5Adv. ICT Res. Inst., NICT, 6Grad. Sch. Sci., Univ. Hyogo, 7Mol. Neurosci. Res. Ctr., Shiga Univ. of Med. Sci., 8Sch. Adv. Sci. Eng., Waseda Univ.)

- 10:07:30 中島 昭彦 2Pos183
1YC1007 動的な場における時間空間知覚メカニズムの解析：走化性パラドクスの克服と細胞の整流作用
Delineating temporal and spatial sensing in migrating cells: chemotactic wave paradox and rectification of the leading edge response
○中島 昭彦¹, 石原 秀至², 石田 元彦³, 井元 大輔³, 澤井 哲^{1,3} (¹東大・院総文・複雑生命, ²明治大・理工, ³東大・院総文・広域科学)
Akihiko Nakajima¹, Shuji Ishihara², Motohiko Ishida³, Daisuke Imoto³, Satoshi Sawai^{1,3} (¹Res. Cent. Comp. Sys. Biol., Grad. Sch. Arts Sci., Univ. Tokyo, ²Sch. Sci. Tech., Meiji Univ., ³Dept. Basic Sci., Grad. Sch. Arts Sci., Univ. Tokyo)
- 10:21:00 中山 義敬 1Pos215
1YC1021 コリネ細菌の機械受容チャネルによる細胞力覚とグルタミン酸放出機構
Bacterial mechanosensation and glutamate export by mechanosensitive channels in *Corynebacterium glutamicum*
○中山 義敬¹, 駒澤 光佑², Navid Bavi^{1,3}, 橋本 賢一², 川崎 寿², Boris Martinac^{1,3} (¹ビクターチャン心臓病研究所, ²東京電機大学, ³ニューサウスウェールズ大学)
Yoshitaka Nakayama¹, Kosuke Komazawa², Navid Bavi^{1,3}, Ken-ichi Hashimoto², Hisashi Kawasaki², Boris Martinac^{1,3} (¹Victor Chang Cardiac Research Institute, ²Tokyo Denki University, ³University of New South Wales)
- 10:34:30 畠山 哲央 1Pos288
1YC1034 生命システムの振動現象における頑健性と可塑性の互恵的關係
Reciprocity between robustness and plasticity in biological oscillators
○畠山 哲央, 金子 邦彦 (東京大学総合文化研究科)
Tetsuhiro S. Hatakeyama, Kunihiko Kaneko (*Department of Basic Science, The University of Tokyo*)
- 10:48:00 原田 隆平 2Pos036
1YC1048 生物学的レアイベントを再現する効率的構造サンプリング手法の開発
Developments of conformational sampling methods for reproducing biologically rare events of proteins
○原田 隆平, 重田 育照 (筑波大学計算科学研究センター)
Ryuhei Harada, Yasuteru Shigeta (*Center for Computational Sciences, University of Tsukuba*)
- 11:01:30 Eiji Yamamoto 2Pos212
1YC1101 **Investigating interactions and dynamics of pleckstrin homology domains on a lipid membrane surface**
Eiji Yamamoto¹, Antreas C. Kalli², Takuma Akimoto¹, Mark S.P. Sansom², Kenji Yasuoka³ (¹Grad. Sch. Sci. Technol., Keio Univ., ²Dept. Biochem., Univ. Oxford, ³Dept. Mech. Eng., Keio Univ.)
- 11:15:00 渡邊 宙志 2Pos042
1YC1115 タンパク質の構造と機能の相関を利用した Channelrhodopsin と MtrF の戦略的立体構造モデリング
Strategic modeling of channelrhodopsins and MtrF based on the correlation between protein structures and functions
○渡邊 宙志^{1,2}, 山下 雄己², Marcus Elstner³, 石北 央^{1,2} (¹東京大学 先端科学技術研究センター, ²東京大学 工学部, ³カールスルーエ工科大学)
Hiroshi C. Watanabe^{1,2}, Yuki Yamashita², Marcus Elstner³, Hiroshi Ishikita^{1,2} (¹UTokyo, RCAST, ²UTokyo, School of Engineering, ³Karlsruhe Institute of Technology)