Publication List

Taro Fukazawa (深澤 太郎)

February 28, 2019

Original Papers

- T. Fukazawa and H. Akai. A new practical scheme for the optimized effective potential method. *Journal of Physics: Condensed Matter*, 22:405501, September 2010.
- S. Iwasaki, T. Fukazawa, M. Ogura, and H. Akai. First-principles calculations of YMn_2. *Journal of the Physical Society of Japan Supplement*, 81:SB032, November 2012.
- Masaaki Geshi and Taro Fukazawa. Pressure induced band gap opening of AlH_3. *Physica B: Condensed Matter*, 411:154, February 2013.
- Taro Fukazawa and Hisazumi Akai. Optimized effective potential method and application to static RPA correlation. *Journal of Physics: Condensed Matter*, 27(11):115502, March 2015.
- Taro Fukazawa, Akihisa Kiyota, and Chuzo Ninagawa. Aggregated transfer function for smart grid FastADR feedback control of wide area distributed building facillities. *IEEJ Transactions on Electrical and Electronic Engineering*, 10(4):487, July 2015.
- Taro Fukazawa, Tomohisa Yamada, and Chuzo Ninagawa. Theoretical performance analysis on trasmission reserve table buffer with triage ranking for resource-limited control networks. *IEEJ Transactions on Electrical and Electronic Engineering*, 11(1):91, January 2016.
- Taro Fukazawa, Yuji Iwata, Junji Morikawa, and Chuzo Ninagawa. Stabilization of neural network by combination with ar model in FastADR control of building air-conditioner facilities. *IEEJ Transactions on Electrical and Electronic Engineering*, 11(1):124, January 2016.
- Taro Fukazawa, Hisazumi Akai, Yosuke Harashima, and Takashi Miyake. First-principles study of intersite magnetic couplings in $NdFe_{12}$ and $NdFe_{12}X$ (X = B, C, N, O, F). *Journal of Applied Physics*, 122(5):053901, August 2017.

- Taro Fukazawa, Hisazumi Akai, Yosuke Harashima, and Takashi Miyake. First-principles Study of Intersite Magnetic Couplings and Curie Temperature in $RFe_{12-x}Cr_x$ (R= Y, Nd, Sm). *Journal of Physical Society of Japan*, 87(4), March 2018.
- Yosuke Harashima, Taro Fukazawa, Hiori Kino, and Takashi Miyake. Effect of *R*-site substitution and the pressure on stability of RFe_{12}: A first-principles study. *Journal of Applied Physics*, 124(16):163902, October 2018.
- Taro Fukazawa, Hisazumi Akai, Yosuke Harashima, and Takashi Miyake. First-principles study of spin-wave dispersion in $Sm(Fe_{1-x}Co_x)_{12}$. *Journal of Magnetism and Magnetic Materials*, 469:296 – 301, January 2019.
- Taro Fukazawa, Hisazumi Akai, Yosuke Harashima, and Takashi Miyake. Curie temperature of Sm_2Fe_{17} and $Nd_2Fe_{14}B$: A first-principles study. *IEEE Transactions on Magnetics*, in press.

Presentations at Conferences

- T. Fukazawa and H. Akai. Exact-exchange based investigation of heusler alloys. In *The 10th Asian Workshop on First-principles electronic Structure Calculations*, Hiroshima University, Higashi-Hiroshima, Japan, October 2007. Poster presentation.
- T. Fukazawa and H. Akai. An effective approximate method of determining optimized effective potentials for extended systems. In *International Conference on Quantum Simulators and Design 2008*, Tokyo, Japan, May 2008. Poster presentation.
- Taro Fukazawa and Hisazumi Akai. A fast optimized effective potential method with EXX and RPA level correlation. In *International Symposium of Electronic Structure Calculations – Theory, Correlated and Large Scale Systems and Numerical methods–*, University of Tokyo, Japan, December 2009. Poster presentation.
- Taro Fukazawa and Hisazumi Akai. Development of a method of first principles electronic structure calculation using optimized effective potential. In *3rd-ICNDR: International Conference of Core Research and Enginnering Science of Advanced Materials & Third International Conference on Nanospintronics Design and Realization*, May 2010. Poster presentation.
- Taro Fukazawa and Hisazumi Akai. Practical method of OEP scheme and its application to rpa level correlation energy. In *Psi-k Conference 2010*, Henry Ford Building, Berlin, Germany, September 2010. Oral presentation.
- Taro Fukazawa. Development of a method of first-principles electronic structure calculation using the optimized effective potential method. In *INSD Nanoscience Seminar (No.2)*, Graduate School of Science, Osaka University, Japan, February 2011. Oral presentation.

- Taro Fukazawa. Development of a method of first-principles calculation using the optimized effective potentials. In *"International Workshop on Nano-Spintronics" and "JSPS core-to-Core Program Kick-Off Meeting"*, June 2012. Poster presentation.

- Taro Fukazawa. Reformulated optimized effective potentials and its application with static random-phase-approximation correlation. In *International Symposium on Computics: Quantum Simulation and Design (ISC-QSD)*, Osaka University Hall, Osaka, Japan, October 2012. Poster presentation.

- Takao Kotani, Hiori Kino, and Taro Fukazawa. Quasiparticle self-consistent gw method in the linearlized (apw+mto) method. In *International Symposium on Computics: Quantum Simulation and Design (ISC-QSD)*, Osaka University Hall, Osaka, Japan, October 2012. Poster presentation.

- Masaaki Geshi and Taro Fukazawa. Band gap opening of AlH_3 under high pressure. In *8th Handai Nanoscience and Nanotechnology International Symposium*, Icho-kaikan, Osaka University, Japan, December 2012. Poster presentation.

- Taro Fukazawa and Hisazumi Akai. Optimized effective potential method and its application to static RPA correlation. In *Green's Functions in ab initio Electronic Structure Calculations of Solids: From Implementation to Applications*, Physikzentrum Bad Honnef, Germany, February 2015. Oral presentation.

- Taro Fukazawa, Hisazumi Akai, Yosuke Harashima, and Takashi Miyake. Inter-site magnetic couplings in $NdFe_{12-\delta}M_\delta$ (M = K–Br). In *CSW2017*, Shonan Village Center, Japan, March 2017. Poster presentation.

- Yosuke Harashima, Taro Fukazawa, Kiyoyuki Terakura, Hiori Kino, Shoji Ishibashi, and Takashi Miyake. Effects of crystal structure and nitrogenation on magnetization and magnetocrystalline anisotropy in $Y_{n-m}Fe_{5n+2m}$ [(n,m)=(1,0), (2,1), (3,1)]. In *CSW2017*, Shonan Village Center, Japan, March 2017. Poster presentation.

- Taro Fukazawa, Hisazumi Akai, Yosuke Harashima, and Takashi Miyake. First-principles study of spin-wave dispersion in $Sm(FeCo)_{12}$. In *Intermag2018*, Marina Bay Sands Convention Centre, Singapore, April 2018. Poster presentation.

- Zhufeng Hou, Taro Fukazawa, Yosuke Harashima, Kiyoyuki Terakura, and Takashi Miyake. First-principles study on stability and magnetism of ZFe_{12} (Z from K to Rn) compounds. In *The 25th International Conference on Rare-Earth Permanent Magnets and Their Applications (REPM2018)*, Peking University, China, August 2018. Oral presentation.

- Taro Fukazawa. A machine-learning scheme for searching new rare-earth magnet compounds. In *Sixth Japan–U.S. Bilateral meeting on rare metals*,

Washington Marriot Wardman Park, Washington, DC, United States, January 2019. Invited talk.

Awards

- Student poster award, June 2010. 3rd-ICNDR: International Conference of Core Research and Enginnering Science of Advanced Materials & Third International Conference on Nanospintronics Design and Realization.
- Best RA award, 2011. "Core Research and Engineering of Advanced Materials– Interdisciplinary Education Center for Materials Science" project, Osaka University , supported by Global COE program, MEXT, Japan.
- A winner of "Art in magnetism" contest by Judges' Selection, 2011. 2018 IEEE International Magnetics Conference (Intermag2018).