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Publications

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Total no of publications: 31

Phys. Rev. Lett.: 2

Phys. Rev. B: 18

Phys. Rev. Research: 1

Phys. Rev. Materials: 1

J. Phys.: Condens. Matter: 3

Europhys. Lett.: 1

Other journals: 5

Important publications:

- S. Fuchs, **T. Dey et al.**, *Unraveling the nature of magnetism of the 5d⁴ double perovskite Ba₂YIrO₆*, [Phys. Rev. Lett. **120**, 237204 \(2018\)](#)
- M. Majumder, R.S. Manna, G. Simutis, J.C. Orain, **T. Dey et al.**, *Breakdown of magnetic order in the pressurized Kitaev iridate β -Li₂IrO₃*, [Phys. Rev. Lett. **120**, 237202 \(2018\)](#)
- **T. Dey et al.**, *Persistent low-temperature spin dynamics in the mixed-valence iridate Ba₃InIr₂O₉*, [Phys. Rev. B **96**, 174411 \(2017\)](#)
- **T. Dey et al.**, *Ba₂YIrO₆: A cubic double perovskite material with Ir⁵⁺ ions*, [Phys. Rev. B **93**, 014434 \(2016\)](#)
- **T. Dey et al.**, *Spin liquid behavior in J_{eff}=1/2 triangular lattice compound Ba₃IrTi₂O₉*, [Phys. Rev. B \(R\) **86**, 140405 \(2012\)](#)

Complete list of publications:

1. Kirill Amelin, Johan Viirik, Urmas Nagel, Toomas Room, Johannes Engelmayer, **Tusharkanti Dey**, Agustinus Agung Nugroho, Thomas Lorenz and Zhe Wang, *Quantum spin dynamics of quasi-one-dimensional Heisenberg-Ising magnets in a transverse field: Confined spinons, E8 spectrum, and quantum phase transitions*, [J. Phys. A: Math. Theor. **55**, 484005 \(2022\)](#)
2. A. Revelli, M. Moretti Sala, G. Monaco, M. Magnaterra, J. Attig, L. Peterlini, **T. Dey**, A. A. Tsirlin, P. Gegenwart, T. Fröhlich, M. Braden, C. Grams, J. Hemberger, P. Becker, P. H. M. van Loosdrecht, D. I. Khomskii, J. van den Brink, M. Hermanns, and M. Grüninger, *Quasi-molecular electronic structure of the spin-liquid candidate Ba₃InIr₂O₉*, [Phys. Rev. B **106**, 155107 \(2022\)](#)
3. Ying Li, A. A. Tsirlin, **Tusharkanti Dey**, P. Gegenwart, R. Valenti, S. M. Winter, *Soft and anisotropic local moments in 4d and 5d mixed-valence M₂O₉ dimers*, [Phys. Rev. B **102**, 235142 \(2020\)](#)
4. Zhao Zhang, Kirill Amelin, Xiao Wang, Haiyuan Zou, Jiahao Yang, Urmas Nagel, Toomas Room, **Tusharkanti Dey**, Agustinus Agung Nugroho, Thomas Lorenz, Jianda Wu, and Zhe Wang, *Observation of E8 particles in an Ising chain antiferromagnet*, [Phys. Rev. B \(Rapid Comm.\) **101**, 220411 \(2020\)](#)
5. M. Majumder, M. Prinz-Zwick, S. Reschke, A. Zubtsovskii, **T. Dey**, F. Freund, N. Buettgen, A. Jesche, I. Kezsmarki, A. A. Tsirlin, and P. Gegenwart,

- Field evolution of low-energy excitations in the hyperhoneycomb magnet β -Li₂IrO₃,*
[*Phys. Rev. B* **101**, 214417 \(2020\)](#)
6. Mayukh Majumder, Gediminas Simutis, Ines E. Collings, Jean-Christophe Orain, **Tusharkanti Dey**, Yuesheng Li, Philipp Gegenwart, and Alexander A. Tsirlin,
Persistent spin dynamics in the pressurized spin-liquid candidate YbMgGaO₄,
[*Phys. Rev. Research* **2**, 023191 \(2020\)](#)
 7. S. Kundu, **T. Dey**, A. V. Mahajan and N. Buettgen,
LiZn₂V₃O₈: a new geometrically frustrated cluster spin-glass,
[*J. Phys.: Condens. Matter* **32**, 115601 \(2020\)](#)
 8. M. Majumder, F. Freund, **T. Dey**, M. Prinz-Zwick, N. Buettgen, Y. Skourski, A. Jesche, A. A. Tsirlin, and P. Gegenwart,
Anisotropic temperature-field phase diagram of single crystalline β -Li₂IrO₃: Magnetization, specific heat, and ⁷Li NMR study,
[*Phys. Rev. Materials* **3**, 074408 \(2019\)](#)
 9. R. Kumar, **T. Dey**, P. M. Ette, K. Ramesha, A. Chakraborty, I. Dasgupta, R. Eremina, Sándor Toth, A. Shahee, S. Kundu, M. Prinz-Zwick, A. A. Gippius, H. A. Krug von Nidda, N. Buettgen, P. Gegenwart, and A.V. Mahajan,
Structural, thermodynamic, and local probe investigations of a honeycomb material Ag₃LiMn₂O₆,
[*Phys. Rev. B* **99**, 144429 \(2019\)](#)
 10. S. Kundu, **T. Dey**, M. Prinz-Zwick, N. Buettgen, and A. V. Mahajan
Structural and magnetic properties of a new cubic spinel LiRhMnO₄,
[*Journal of Magnetism and Magnetic Materials* **481**, 77 \(2019\)](#)
 11. R. Kumar, **Tusharkanti Dey**, P. M. Ette, K. Ramesha, Atasi Chakraborty, I. Dasgupta, J. C. Orain, C. Baines, Sandor Toth, A. Shahee, S. Kundu, M. Prinz-Zwick, A. A. Gippius, N. Buettgen, P. Gegenwart, and A.V. Mahajan
Unconventional magnetism in the 4d⁴-based S = 1 honeycomb system Ag₃LiRu₂O₆,
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 12. B. Singh, G. A. Cansever, **T. Dey**, A. Maljuk, S. Wurmehl, B. Buechner and P. Kumar,
Orbital-Phonon coupling in Ir⁵⁺ (5d⁴) double perovskite Ba₂YIrO₆,
[*J. Phys.: Condens. Matter* **31**, 065603 \(2019\)](#)
 13. M. Iakovleva, S. Fuchs, A. Alfonsov, H.-J. Grafe, M. Vogl, S. Aswartham, S. Wurmehl, **T. Dey**, B. Buechner, E. Vavilova, and V. Kataev,
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 14. S. Fuchs, **T. Dey**, G. Aslan, A. Maljuk, S. Wurmehl, B. Buechner, and V. Kataev,
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[*Phys. Rev. Lett.* **120**, 237204 \(2018\)](#)
 15. M. Majumder, R.S. Manna, G. Simutis, J.C. Orain, **T. Dey**, F. Freund, A. Jesche, R. Khasanov, P.K. Biswas, E. Bykova, N. Dubrovinskaia, L.S. Dubrovinsky, R. Yadav, L. Hozoi, S. Nishimoto, A.A. Tsirlin, and P. Gegenwart,
Breakdown of magnetic order in the pressurized Kitaev iridate β -Li₂IrO₃,
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 16. M. Kusch, V. M. Katukuri, N. A. Bogdanov, B. Buechner, **T. Dey**, D. Efremov, J. E. Hamann-Borrero, B. H. Kim, M. Krisch, A. Maljuk, M. Moretti Sala, S. Wurmehl, G. Aslan-Cansever, M. Sturza, L. Hozoi, J. van den Brink, and J. Geck,
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17. M. Vogl, L.T. Corredor, **T. Dey**, R. Morrow, F. Scaravaggi, A.U.B. Wolter, S. Aswartham, S. Wurmehl, and B. Buechner,
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18. **Tusharkanti Dey***, M. Majumder, J. C. Orain, A. Senyshyn, M. Prinz-Zwick, S. Bachus, Y. Tokiwa, F. Bert, P. Khuntia, N. Buettgen, A. A. Tsirlin and P. Gegenwart,
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19. F. Hammerath, R. Sarkar, S. Kamusella, C. Baines, H.-H. Klauss, **T. Dey**, A. Malyuk, S. Gass, A.U.B. Wolter, H.-J. Grafe, S. Wurmehl and B. Buechner,
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20. L.T. Corredor, G. Aslan-Cansever, M. Sturza, K. Manna, A. Maljuk, S. Gass, A. Zimmermann, **T. Dey**, C. G. F. Blum, M. Geyer, A. U. B. Wolter, S. Wurmehl and B. Buechner,
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21. R. Kumar, D. Sheptyakov, P. Khuntia, K. Rolfs, P. G. Freeman, H. M. Ronnow, **Tusharkanti Dey**, M. Baenitz and A. V. Mahajan,
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22. P. Khuntia, **T. Dey** and A. V. Mahajan,
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23. **T. Dey***, A. Maljuk, D.V. Efremov, O. Kataeva, S. Gass, C.G.F. Blum, F. Steckel, D. Gruner, T. Ritschel, A. U. B. Wolter, J. Geck, C. Hess, K. Koepernik, J. van den Brink, S. Wurmehl and B. Buechner,
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24. O. Zaharko, S. Toth, O. Sendetskyi, A. Cervellino, A. Wolter-Giraud, **T. Dey**, A. Maljuk and V. Tsurkan,
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25. **Tusharkanti Dey**, R. Kumar, A. V. Mahajan, S. D. Kaushik and V. Siruguri,
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26. **Tusharkanti Dey***, P. Khuntia, A. V. Mahajan, Anupam and Z. Hossain,
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28. **T. Dey*** and A. V. Mahajan,
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