Journal Articles

[1] P. Giuliani, K. Godbey, E. Bonilla, F. Viens, and J. Piekarewicz, "Bayes goes fast: uncertainty quantification for a relativistic mean field nuclear model emulated by the reduced basis method (submitted)",

[2] E. Bonilla, P. Giuliani, K. Godbey, and D. Lee, "Training and projecting: a reduced basis method emulator for many-body physics (accepted)",

[3] K. Godbey, A. S. Umar, and C. Simenel, "Theoretical uncertainty quantification for heavy-ion fusion (accepted)",

[4] E. Flynn, D. Lay, S. Agbemava, P. Giuliani, K. Godbey, W. Nazarewicz, and J. Sadhukhan, "Nudged elastic band approach to nuclear fission pathways", Phys. Rev. C **105**, 054302 (2022).

[5] L. Li, L. Guo, K. Godbey, and A. Umar, "Impact of tensor force on quantum shell effects in quasifission reactions", Physics Letters B **833**, 137349 (2022).

[6] A. Bulgac, I. Abdurrahman, K. Godbey, and I. Stetcu, "Fragment intrinsic spins and fragments' relative orbital angular momentum in nuclear fission", Phys. Rev. Lett. **128**, 022501 (2022).

[7] K. Godbey, Z. Zhang, J. W. Holt, and C. M. Ko, "Charged pion production from Au + Au collisions at $\sqrt{s_{NN}} = 2.4$ GeV in the Relativistic Vlasov-Uehling-Uhlenbeck model", Physics Letters B **829**, 137134 (2022).

[8] C. Simenel, P. McGlynn, A. S. Umar, and K. Godbey, "Comparison of fission and quasi-fission modes", Physics Letters B **822**, 136648 (2021).

[9] A. S. Umar, C. Simenel, and K. Godbey, "Pauli energy contribution to the nucleus-nucleus interaction (Editors' Suggestion)", Phys. Rev. C **104**, 034619 (2021).

[10] A. Bulgac, I. Abdurrahman, S. Jin, K. Godbey, N. Schunck, and I. Stetcu, "Fission fragment intrinsic spins and their correlations", Phys. Rev. Lett. **126**, 142502 (2021).

[11] C. Simenel, K. Godbey, and A. S. Umar, "Timescales of quantum equilibration, dissipation and fluctuation in nuclear collisions", Phys. Rev. Lett. **124**, 212504 (2020).

[12] K. Godbey, C. Simenel, and A. S. Umar, "Microscopic predictions for the production of neutron-rich nuclei in the reaction $^{176}\mathrm{Yb} + ^{176}\mathrm{Yb}$", Phys. Rev. C **101**, 034602 (2020).

[13] K. Godbey and A. S. Umar, "Quasifission dynamics in microscopic theories", Frontiers in Physics **8**, 40 (2020).

[14] K. Godbey, L. Guo, and A. S. Umar, "Influence of the tensor interaction on heavy-ion fusion cross sections", Phys. Rev. C **100**, 054612 (2019).

[15] K. Godbey, C. Simenel, and A. S. Umar, "Absence of hindrance in a microscopic $^{12}\mathrm{C} + ^{12}\mathrm{C}$ fusion study", Phys. Rev. C **100**, 024619 (2019).

[16] K. Godbey, A. S. Umar, and C. Simenel, "Deformed shell effects in $^{48}\mathrm{Ca} + ^{249}\mathrm{Bk}$ quasifission fragments", Phys. Rev. C **100**, 024610 (2019).

[17] L. Guo, K. Godbey, and A. S. Umar, "Influence of the tensor force on the microscopic heavy-ion interaction potential", Phys. Rev. C **98**, 064607 (2018).

[18] C. Simenel, A. S. Umar, K. Godbey, M. Dasgupta, and D. J. Hinde, "How the Pauli exclusion principle affects fusion of atomic nuclei", Phys. Rev. C **95**, 031601 (Rapid Communication) (2017).

[19] K. Godbey, A. S. Umar, and C. Simenel, "Dependence of fusion on isospin dynamics", Phys. Rev. C **95**, 011601 (Rapid Communication) (2017).

[20] V. Tarasov, K. Gridnev, S. Schramm, V. Kuprikov, D. Gridnev, D. Tarasov, K. Godbey, X. Viñas, and W. Greiner, "Light exotic nuclei with extreme neutron excess and $2 \leq Z \leq 8$", International Journal of Modern Physics E **24**, 1550057 (2015).

Books

[1] K. Godbey, A. Semposki, P. Giuliani, and J. Li, *Quantum Computing Applications in Nuclear Physics*, `https://qc.kyle.ee` (Self Published).

Conference Proceedings

[1] A. S. Umar, C. Simenel, S. Ayik, and K. Godbey, "Equilibration dynamics in nuclear reactions", in 4th International Conference on Nuclear Structure and Dynamics (NSD2019) Venice, Italy, May 13-17, 2019, Vol. 223 (2019), p. 01066.

[2] A. S. Umar, C. Simenel, and K. Godbey, "Equilibration dynamics and isospin effects in nuclear reactions", in IL NUOVO CIMENTO, Vol. C41, 5 (2019), p. 173.

[3] C. Simenel, K. Godbey, A. S. Umar, K. Vo-Phuoc, M. Dasgupta, D. J. Hinde, and E. C. Simpson, "Effect of Pauli repulsion and transfer on fusion", in 7th International Conference on Heavy-Ion Collisions at Near-Barrier Energies (FUSION17) Hobart, Tasmania, February 20-24, 2017 (2017).

[4] C. Simenel, M. Dasgupta, D. J. Hinde, K. Godbey, and A. S. Umar, "Microscopic Approach To Heavy-ion Fusion: role of the Pauli principle", in Proceedings of The 26th International Nuclear Physics Conference (INPC2016). 11-16 September, 2016. Adelaide, Australia. id.212 (2016), p. 212.

[5] V. Tarasov, K. Gridnev, W. Greiner, V. Kuprikov, D. Gridnev, D. Tarasov, X. Viñas, and K. Godbey, "Investigating the properties of nuclei with extreme neutron excess and $2 \leq Z \leq 8$", in , Vol. 79, 7 (2015), pp. 819–822.

Popular Science

[1] K. Godbey, *Physics ex Machina*, (2019) `https://www.lindau-nobel.org/physics-ex-machina/`.