PROMOTION RECOMMENDATION The University of Michigan College of Literature, Science, and the Arts

David J. Baker, associate professor of philosophy, with tenure, College of Literature, Science, and the Arts, is recommended for promotion to professor of philosophy, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D. 2008 Princeton University B.S. 2003 University of Michigan

Professional Record:

2014-present Associate Professor of Philosophy, University of Michigan Assistant Professor of Philosophy, University of Michigan

Summary of Evaluation:

<u>Teaching</u>: Professor Baker has taught a wide variety of courses, many outside of his main areas of research, in which he has successfully experimented with different ways of engaging students. Particularly noteworthy is his creation of Philosophy of Science Fiction (PHIL 154), in which he has invited some of the science fiction writers whose work he has assigned to visit the class to engage with students. Moreover, in one of his graduate seminars on philosophy of physics (PHIL 560), Professor Baker has employed the strategy of having students vote on the topics to be covered in the course. Professor Baker is open to new ideas for instruction, and he is willing and eager to explore a range of topics in his teaching.

Research: Professor Baker is a leading scholar of the metaphysics of physics. He is one of a very small group of philosophers able to draw on a mastery of the technical details of various branches of mathematical physics to enrich a deep and broad engagement with central issues in metaphysics. He has published work that provides a substantial basis for a planned monograph on notions of symmetry in physics and their implications for the nature of reality, which experts predict will serve only to increase his already considerable influence on scholarship in the field.

Recent and Significant Publications:

- "Interpreting Supersymmetry." *Erkenntnis* 87 (2022): 2375-2396, https://doi.org/10.1007/s10670-020-00306-4.
- "Knox's inertial spacetime functionalism (and a better alternative)." *Synthese* 199, no. 2 (2020): 277-298, https://doi.org/10.1007/s11229-020-02598-z.
- "Some Consequences of Physics for the Comparative Metaphysics of Quantity." Oxford Studies in Metaphysics 12 (2020): 75-112.
- Carcassi, Gabriele, Christine Aidala, David J. Baker, and Lydia Bieri. "From physical assumptions to classical and quantum Hamiltonian and Lagrangian particle mechanics." *Journal of Physics Communications* 2, no. 4 (2018): 045026.
- "Does String Theory Posit Extended Simples?" *Philosophers' Imprint* 16, no. 18 (2016).
- "The Philosophy of Quantum Field Theory." Oxford Handbooks Online (2016), https://doi.org/10.1093/oxfordhb/9780199935314.013.33.

<u>Service</u>: Professor Baker has served for five years as the director of undergraduate studies (DUS) for the Department of Philosophy, which period includes the pandemic and GEO strike. In times of calm, he introduced several significant curricular reforms, whereas in times of crisis, his interventions allowed

undergraduate instruction to remain on course. During his time as DUS, Professor Baker also was the director for the department's interdisciplinary program in Philosophy, Politics and Economics and served very effectively in this role. The role of DUS is significant on its own, but in taking on that role as well as the role of the PPE director, Professor Baker went far beyond the call of duty. His ability to serve in these roles so well in difficult times while also teaching with success in a range of areas and undertaking a robust research program that has garnered considerable attention among those working in his areas of specialization is impressive.

External Reviewers:

Reviewer (A): "Baker is a talented leading voice in both philosophical foundations of physics and the metaphysics of science."

Reviewer (B): "Baker is widely recognized as a leader in his field, and [...] he clearly has the profile of a Full Professor at an R1 institution."

Reviewer (C): "Baker has continued to write influential work, and his contributions continue to be the best in the field when it comes to exploring the interface between philosophy of physics and metaphysics."

Reviewer (D): "This work [on symmetries in physics] has positioned Baker as one of the leading figures on the physics and metaphysics of symmetries, a central topic in the philosophy of physics and the metaphysics of science."

Reviewer (E): "[...] I can confidently say that in the places where Baker's work abuts metaphysics, he is making valuable contributions that are determining the direction of the field."

Reviewer (F): "Does String Theory Posit Extended Simples and Some Consequences of Physics for the Comparative Metaphysics of Quantity take up questions that metaphysicians who know little physics can be got to care about, but which require a knowledge of and facility with physics to answer. Baker brings his knowledge and facility to bear; these are very good papers."

Summary of Recommendation:

Professor Baker is recognized as a leader in the area of the metaphysics of physics, and he has contributed creative and broadly distributed teaching as well as exceptional service to the department, college, university, and profession. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor David J. Baker be promoted to the rank of professor of philosophy, with tenure, College of Literature, Science, and the Arts.

Anne Curzan, Dean

Geneva Smitherman Collegiate Professor of English Language and Literature, Linguistics,

and Education

Arthur F. Thurnau Professor

College of Literature, Science, and the Arts