## RICHARD JOHN FURNSTAHL

Department of Physics The Ohio State University Columbus, OH 43210

> (614) 292–4830 furnstahl.1@osu.edu

### CURRICULUM VITAE

Born: January 13, 1959

Haddonfield, New Jersey

### Education:

| Degree | Institution         | Date |
|--------|---------------------|------|
| Ph.D.  | Stanford University | 1986 |
| B.S.   | М. І. Т.            | 1981 |

### Academic Positions:

| Full Professor               | The Ohio State University | 2000-present |
|------------------------------|---------------------------|--------------|
| Associate Professor          | The Ohio State University | 1995 - 2000  |
| Assistant Professor          | The Ohio State University | 1991 - 1995  |
| Assistant Research Scientist | University of Maryland    | 1990 - 1991  |
| CTP Fellow                   | University of Maryland    | 1987 - 1990  |
| Postdoctoral Fellow          | Indiana University        | 1985 - 1987  |

### Fellowships and Awards:

| APS Outstanding Referee                            | 2009        |
|--|-------------|
| Fellow of the AAAS                                 | 2007        |
| Harlan Hatcher Memorial Award for Excellence (OSU) | 2005        |
| John and Ruth Mount Award (OSU)                    | 2004        |
| Fellow of the American Physical Society            | 2001        |
| Ohio State Alumni Award for Distinguished Teaching | 1997        |
| NSF National Young Investigator                    | 1992 - 1998 |
| Alfred P. Sloan Research Fellowship                | 1992 - 1996 |
| CTP Fellow, University of Maryland                 | 1987 - 1990 |
| Chester Davis Fellow, Indiana University           | 1985 - 1986 |

#### National and International Committees:

| EMMI Scientific Advisory Committee (Chair since 2017) | 2016-present |
|---|--------------|
| APS Committee on Scientific Publications              | 2016-present |
| APS DNP Feshbach Prize Selection Committee            | 2015 - 2016  |

| FRIB Theory Users Group Executive Committee                              | 2012 - 2015    |
|--|----------------|
| FRIB Theory Center Steering Committee                                    | 2013-present   |
| TALENT Steering Committee (Director since 2015)                          | 2012 - present |
| SciDAC NUCLEI Council  | 2012-present   |
| APS Division of Nuclear Physics Executive Committee                      | 2011 - 2013    |
| Nuclear Science Advisory Committee (NSAC)                                | 2009-2011      |
| Institute for Nuclear Theory National Advisory Committee (chair 2010–12) | 2009 - 2012    |
| SciDAC UNEDF Council   | 2007 - 2012    |
| APS Division of Nuclear Physics Nominating Committee                     | 2005 - 2006    |
| APS Division of Nuclear Physics Webpage Committee (chair 2012-13)        | 2002 - 2013    |
| National Nuclear Physics Summer School Committee (chair 2002-03)         | 2001 - 2005    |
| National Science Foundation Committee of Visitors                        | 2003           |
| Institute for Nuclear Theory National Advisory Committee                 | 1999 - 2001    |
| APS Division of Nuclear Physics Education Committee                      | 1997 - 2001    |
| APS Research at an Undergraduate Inst. Award Committee (chair)           | 1996 - 1998    |
| IUCF Program Advisory Committee  | 1992 - 1995    |
| APS Maria Goeppert-Mayer Award Committee (chair 1994-95)                 | 1993 - 1995    |

### **Ohio State University Committees:**

| Battelle Endowment for Technology and Human Affairs (BETHA)      | 2006 - 2009 |
|--|-------------|
| Faculty Steering Committee for the Undergraduate Research Office | 2005 - 2010 |
| Instruction Technology Advisory Committee                        | 2002 - 2003 |
| MAPS Curriculum committee  | 2001 - 2002 |
| BETHA Committee (chair 2000-2001)                                | 1999 - 2001 |
| Task Force on Electronic Theses and Dissertations                | 1998        |
| Graduate Assocate Teaching Award Selection Committee             | 1998        |
| Searle Scholars Selection Committee                              | 1997        |
| Special College Committee on Computer Support Salaries           | 1997        |
| College Computer Committee                                       | 1995 - 1996 |

### **Professional Societies:**

American Physical Society, American Association of Physics Teachers, American Association for the Advancement of Science

### **Referee:**

Physical Review Letters, Physical Review B, C, and D, Nuclear Physics A, Physics Letters B, European Journal of Physics, Physics Reports, Reviews of Modern Physics
Editorial Board of Physical Review C (2006–2008)
National Science Foundation (panel chair 2012), U.S. Department of Energy, NSERC
INCITE Panel for Nuclear Physics (2010–2011, chair 2014, 2015)
DOE Nuclear Theory Comparative Review (2013)

# Funding:

| National Science Foundation Grant (PHY-9203145)       1992-95       \$118,000.         IBM Grant (with Prof. B. C. Clark)       1992-94       \$61,236.         National Young Investigator Award (PHY-9258270)       1992-97       \$270,000.         Sloan Foundation Fellowship       1992-96       \$30,000.         NSF Grant (PHY-9511923) [with Profs. Clark and Perry]       1995-98       \$475,000.         NSF Grant (DUE-9653145) [with Prof. van Heuvelen]       1997-00       \$400,000         NSF Grant (PHY-9800964) [with Profs. Clark and Perry]       1998-01       \$750,000.         NSF Grant (PHY-0098645) [with Profs. Clark and Perry]       2001-04       \$840,000.         NSF Grant (PHY-0354916)       2004-07       \$575,000. |
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|  |
| NSF Grant (PHY-0354916) 2004-07 \$575,000.   |
|  |
| [with Profs. Clark, Jeschonnek, and Perry]   |
| DOE SciDAC Grant (371984 and DE-FC02-09ER41586) 2006-11 \$474,000.   |
| NSF Grant (PHY-0653312) [with Jeschonnek and Perry] 2007–10 \$692,000.   |
| NSF Grant (PHY–1002478) [with Jeschonnek and Perry] 2010–13 \$991,000.   |
| DOE SciDAC NUCLEI Grant (DE-SC0008533)         2012–17         \$425,000.  |
| NSF Grant (PHY–1306250) [with Jeschonnek and Perry] 2013–17 \$688,000.   |
| NSF Grant (PHY–1614460) [with Jeschonnek and Perry] 2016–19 \$630,000.   |

## Postdocs mentored

Nathan Parzuchowski (2017–*present*), Xinu Zhang (2016–*present*), Sebastian Koenig (2013–2016), Heiko Hergert (2011–2014), Kai Hebeler (2010–2013), Joaquin Drut (2008–2010), Lucas Platter (2007–2009), Sunethra Ramanan (2007), Scott Bogner (2005–2007), Achim Schwenk (2002–2004), Steven Puglia (2001–2003), Hans-Werner Hammer (2000–2002), Thomas Mehen (1999–2001), Michael Strickland (1997–1999), James Steele (1997–1999), Werner Koepf (1996–1998), Hua-Bin Tang (1994–1996), Derek Leinweber (1993–1994)

### Former graduate students:

Eric Anderson (PhD 2012), Anirban Bhattacharyya (PhD 2005), Eric Jurgenson (PhD 2009), Sushant More (PhD 2016), Alex Perhac (MS 2016), Sunethra Ramanan (PhD 2007), John Rusnak (PhD 1997), Negussie Tirfessa (PhD 2001), Kyle Wendt (PhD 2013), Sarah Wesolowski (PhD 2017), Trey White (MS 1996)

# Current graduate students:

Ryan Caulfield, Alex Dyhdalo, Jordan Melendez

### Lectures at physics schools

| HUGS Summer School, Jefferson Lab, Newport News, VA | 2014 |
|---|------|
| INT/TALENT course on Nuclear Forces, Seattle WA     | 2013 |

| National Nuclear Physics Summer School                           | 2004, 2012 |
|--|------------|
| 49 <sup>th</sup> Schladming International Winter School, Austria | 2011       |
| TRIUMF Summer Institute, Vancouver, BC                           | 1994, 2008 |
| ECT <sup>*</sup> School on RG and EFT Approaches, Trento, Italy  | 2006       |
| 17th Indian-Summer School, Rez/Prague, Czech Republic            | 2005       |
| Beijing Summer School on Nuclear QCD, Beijing, China             | 1995       |

### Programs ( $\geq 4$ weeks) co-organized

INT Program on "Nuclear Structure at the Crossroads", Summer, 2019 (scheduled)INT Program on "Bayesian Methods in Nuclear Physics", Summer, 2016EMMI Program on "The Extreme Matter Physics of Nuclei: From Universal Properties

to Neutron-Rich Extremes", Spring, 2012 INT Program on "Effective Field Theories and the Many-Body Problem", Spring, 2009 INT Program on "Theories of Nuclear Forces and Nuclear Systems", Autumn, 2003

#### **Research topics:**

Prof. Furnstahl's current research applies effective field theory (EFT) and renormalization group methods to strong-interaction few- and many-body systems. This includes deriving low-momentum few-body interactions based on chiral EFT and using them to construct a microscopic energy density functional for nuclei.