


# Peter McCullough

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<b>Peter R. McCullough</b>	
 <p style="text-align: center;">McCullough circa 2008</p>	
<b>Born</b>	August 20, 1964
<b>Nationality</b>	American
<b>Fields</b>	Astronomy
<b>Institutions</b>	Space Telescope Science Institute
<b>Alma mater</b>	University of North Carolina, Chapel Hill, University of California, Berkeley
<b>Doctoral advisor</b>	Carl Heiles
<b>Known for</b>	Discovering transiting extrasolar planets

**Peter R. McCullough** (pronounced /mᑭˈkʌlᑭ/; born August 20, 1964, Providence, Rhode Island) is an American astronomer, founder of the XO Project and discoverer of extrasolar transiting planets, such as XO-1b.<sup>[1] [2]</sup> Soon after the U.S. declassification of the laser beacon adaptive optics technique in 1991, he identified dusty disks around new born stars, later referred to as proplyds, in observations of the Orion Nebula made with the Starfire Optical Range.<sup>[3]</sup> Astronomers John Gaustad, McCullough, and David Van Buren with engineer Wayne Rosing mapped the entire southern sky in the hydrogen alpha transition with sufficient sensitivity for decontamination of the Milky Way from the cosmic microwave background.<sup>[4] [5]</sup> McCullough's modification to the Stromgren sphere model often produces more realistic results than the original.<sup>[6]</sup>

## Biography

### Education

McCullough attended public primary schools in Massachusetts and North Carolina. In summers between his undergraduate years, he interned at the Wind River National Outdoor Leadership School, the Palo Alto CA police department, Weyerhaeuser, and the National Radio Astronomy Observatory's Very Large Array. McCullough received a Bachelor of Science in physics in 1986 from the University of North Carolina, Chapel Hill. He traveled the world before entering graduate school at the University of California, Berkeley, where he earned a PhD in astrophysics in 1993.<sup>[7]</sup>

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## Employment

McCullough was a Hubble postdoctoral fellow, and then an assistant professor in the Astronomy Department of the University of Illinois Urbana-Champaign.<sup>[8]</sup> In 2002 he moved to Baltimore, Maryland to work at the Space Telescope Science Institute on the Hubble Space Telescope and the James Webb Space Telescope.<sup>[9]</sup> In 2009-2010 he was a visiting scientist at the Smithsonian Astrophysical Observatory and the Institute d'Astrophysique in Paris.<sup>[10]</sup> <sup>[11]</sup>

## Personal Interests

McCullough widely advocates for sustainability and renewable energy.<sup>[12]</sup>

## Relations

McCullough is married to astronomer Margaret Meixner, whom he met at age 22. The couple have two children. His mother was a research librarian and poet.<sup>[13]</sup> His father was an oceanographic engineer<sup>[14]</sup>. Additional notable relations are an inventor<sup>[15]</sup>, a historian<sup>[16]</sup>, and businessmen<sup>[17]</sup>.

## Awards and Fellowships

McCullough has received numerous awards throughout his career. His undergraduate education was supported entirely by merit scholarships<sup>[18]</sup> <sup>[19]</sup>. NASA granted him a graduate student researcher award and a Hubble postdoctoral fellowship<sup>[20]</sup>. He was a recipient of the Sloan Fellowship<sup>[21]</sup>. In recognition of his university teaching and research, the U.S. National Science Foundation granted him a CAREER award<sup>[22]</sup> and the Research Corporation selected him as a Cottrell Scholar<sup>[23]</sup>.

## See also

- List of stars with confirmed planets

## References

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- [2] "Amateurs Help Discover Transiting Exoplanet" (<http://www.skyandtelescope.com/news/3077381.html>). .
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- [4] <http://www.journals.uchicago.edu/doi/abs/10.1086/323969>
- [5] <http://amundsen.swarthmore.edu/>
- [6] [http://en.wikipedia.org/wiki/Str%C3%B6mgren\\_sphere#The\\_history](http://en.wikipedia.org/wiki/Str%C3%B6mgren_sphere#The_history)
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- [9] [http://heritage.stsci.edu/2006/13/bio/bio\\_primary.html](http://heritage.stsci.edu/2006/13/bio/bio_primary.html)
- [10] <http://www.cfa.harvard.edu/events/colloquia/spring10.html>
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- [12] "Reliable and affordable delivery of fusion power to your home" ([http://www.sustainablebelmont.net/climate\\_action\\_resource\\_cons/SolarPowerExperience\\_Year1.ppt.htm](http://www.sustainablebelmont.net/climate_action_resource_cons/SolarPowerExperience_Year1.ppt.htm)). . Retrieved 2010-10-26.
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- [19] "List of Morehead-Cain Scholars" (<http://www.m-c-network.org/search/>). .
- [20] "List of Hubble Fellows" (<http://www.stsci.edu/institute/org/spd/hubble-fellowship/fellows-list>). .
- [21] "List of Alfred P. Sloan Research Fellows" (<http://www.sloan.org/fellowships/list>). .

- [22] "NSF CAREER award: The Faint Interstellar Medium and Stardial" (<http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=9874670>). .
- [23] "List of Cottrell Scholars" (<http://www.rescorp.org/gdresources/downloads/past.csa.pdf>). .

## **External links**

- McCullough's homepage at STScI (<http://www.stsci.edu/~pmcc/>)