

# Curriculum Vitae

Dr **Rami Rekola**, PhD, FRAS

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## Personal Data

|              |                            |
|--------------|----------------------------|
| Full name:   | Rami Tapani Fritiof Rekola |
| Citizenship: | Finland & USA              |
| Education:   | PhD and MSc in Astronomy   |

## Objective

I am looking for a career in which I can exploit my problem solving, data analysis, and programming skills, as well as my organisational, management, and communication skills.

## Languages

|          |                               |          |       |
|----------|-------------------------------|----------|-------|
| Finnish: | Fluent (native tongue)        | French:  | Good  |
| English: | Fluent (IELTS 8.0, TOEFL 112) | Spanish: | Fair  |
| Swedish: | Good                          | Greek:   | Basic |

## Special Skills

Problem solving, organising, data analysis, programming, science communication

## Prizes and Special Honours

Prize for a meritorious thesis accepted in University of Turku during the academic year of 2004 – 2005, The Finnish University Society of Turku (Turun Suomalainen Yliopistoseura ry); 5 Sep 2005

## Publications

Total: 43    Refereed: 20    Conference: 10    Citations: 1238    (5 best: 237, 157, 139, 97, 83)

## Education

### Continued Education

#### **Stanford University online course on Coursera (USA):**

Machine Learning; 2020

Online course on Udacity:

Version Control with Git; 2021 (undocumented, no certificate)

### Academic Education

#### **University of Turku (Turku, Finland):**

Doctor of Philosophy (Major Subject: Astronomy): degree awarded on 13 April 2007

PhD Thesis (Distance Determinations to Nearby Galaxies), accepted with honours on 20 January 2005; dissertation was held at the University of Turku on 18 December 2004

Master of Science (Programme of Physical Sciences, Line of Astronomy) 24 September 1998

Master's thesis (Simulations of the Local Group Dynamics) accepted with the highest grade "Laudatur" on 12 September 1997

#### **Embry-Riddle Aeronautical University online courses (USA):**

Online Teaching Methods for Astronomy; 2015

#### **NASA/Nordic Astrobiology Winter School (Hawai'i, USA):**

"Water and the Evolution of Life in the Cosmos"; 3–17 January 2011

#### **NATO Advanced Study Institute Summer School (Blair Atholl, Scotland, UK):**

"The Restless Universe"; 24 July – 5 August 2000

#### **Finnish Graduate School in Astronomy and Space Physics Summer School (Tuorla, Finland):**

"Modern Data Analysis Methods in Astronomy and Space Physics"; 12–16 June 2000

#### **Instituto de Astrofísica de Canarias Winter School (Tenerife, Spain):**

"Stellar Astrophysics for the Local Group"; 2–13 December 1996

### Secondary Education

#### **Senior Secondary School of Meri-Pori (Pori, Finland):**

Graduated with average grade of 9.1 (with 10 as maximum) on 31 May 1989

#### **Lorenzo High School (Lorenzo, Texas, USA):**

Graduated with cumulative GPA of 97.30 (with 100 as maximum) on 31 May 1988

## Certificates

**Radiation and Nuclear Safety Authority in Finland:** Certificate "to work as a responsible manager in charge of radiation usage concerning general usage in industry, research and education, and trade of radiation devices and radioactive material"; awarded 31 March 1993 (expired)

**Pennsylvania Insurance Department** (Commonwealth of Pennsylvania, USA): Resident Producer (Lines of Authority: Life and Fixed Annuities); awarded 4 October 2016 (expired)

## Academic Working Experience

### **Department of Computing / University of Turku** (Turku, Finland):

Postdoctoral researcher 14 September 2020 – present

### **Embry-Riddle Aeronautical University** (USA):

Adjunct Assistant Professor 16 January 2015 – 20 May 2017

### **Institute for Astronomy / University of Hawai'i** (Manoa / Honolulu, Hawai'i, USA):

Postdoctoral Fellow, independent research on stellar evolution, programming of image processing algorithms, and telescope maintenance 9 March – 24 June 2015

### **Tuorla Observatory / University of Turku** (Turku, Finland):

Various research positions, all of which allowed for independent research on cosmology and observational astronomy, computer system management and public outreach  
1 January 1996 – 30 April 2014

### **Department of Physics and Astronomy / University of Turku** (Turku, Finland):

Part-time lecturer (total 158 hours of lectures and exercises + preparatory work)  
autumn 2011, autumn 2009, autumn 2002

### **Nordic Optical Telescope** (La Palma, Spain):

Assistant support astronomer (total 7 months, included in the above-mentioned work with Tuorla Observatory) 2000 (4 months), 2002 (3 months)

### **Metsähovi Radio Observatory** (Kirkkonummi, Finland):

Junior research assistant, observations with radio telescope 1992 – 1996

– a part-time job with work duty on an on-demand basis, altogether over 300 hours over the given time interval

## Teaching Experience

### **University of Turku** (Turku, Finland):

2 courses (Radiative Processes in Astrophysics) – autumn 2009 and autumn 2011  
1 course (Astronomy I) – autumn 2002

### **Nordic Optical Telescope Science School** (Turku, Finland & La Palma, Spain):

Programme afforded senior secondary school students the opportunity to visit Tuorla Observatory (Turku, Finland) for two days and spend one week in La Palma (Spain) for astronomical observations using the 2.56-metre Nordic Optical Telescope.  
The science school was organised 9 times from 2007 to 2013 for 20 students per group.

### **Senior Secondary School “Turun Suomalaisen Yhteiskoulun Lukio”** (Turku, Finland):

2 astrophysics courses for 12<sup>th</sup> grade students – autumn 2012 and autumn 2013

### **Junior Secondary School “Katariinan koulu”** (Turku, Finland):

4 astronomy courses for junior secondary school students with learning disabilities  
– spring 2010, spring 2011, spring 2012 and spring 2013

## Non-Academic Working Experience

### **Entrepreneur** (company: Astromatkat):

Research, education, and science communication 4 April 2011 – . . .

### **Researcher** (independent contractor for: Finnish Defence Research Agency):

Scientific research on radar and data analysis algorithms 15 Aug 2019 – 15 June 2020

Scientific research on astronavigation 7 Jun 2021 – 30 Nov 2021

### **European Southern Observatory (ESO) Science Outreach Network representative for Finland** (independent contractor for: ESO):

Interfacing with media, local scientists, and general public; translations of press releases, pictures of the week, and brochures 1 January 2012 – 31 December 2018

### **Insurance Producer** (independent contractor for: American Income Life Insurance Company):

Life insurance presentations and sales as a field agent 19 October 2016 – 24 February 2017

### **Manager** (independent contractor for: Nordic Optical Telescope Science School):

Designed, authored, and presented the science school programme, including lectures and telescope observations, and also orchestrated logistics, including local transportation, accommodations, and field trips; 2007 – 2013

### **Translation of “Quantum Man – Richard Feynman's Life in Science” by Lawrence Krauss into Finnish:**

“Kvanttimies - Richard Feynmanin tieteellinen elämä” (ISBN 978-952-5985-14-6); 2013

## References

### **Prof Mauri Valtonen**, former director of Tuorla Observatory

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### **Dr Chris Flynn**, PhD thesis supervisor at Tuorla Observatory

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### **Prof Gene G. Byrd**, PhD thesis opponent

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### **Prof Esko Valtaoja**, former director of Tuorla Observatory

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## Academic and Scientific Positions of Trust

**Finnish National Committee for Astronomy:** Council member (Secretary) 2012–15

**Finnish Astronomical Society** (Suomen tähtitieteilijäseura ry):

- Council member 1996
- Vice-Chairman 1997 – 2000
- Secretary 2012–14

**Ursa Astronomical Association** (Tähtitieteellinen yhdistys Ursa ry): Council member 2010–13

**Tuorlan Astronomical Society** (Tuorlan tähtitieteellinen seura ry):

- Council member (Secretary) 2004
- Council member (Secretary/Treasurer) 2004–13 (9 terms)
- Council member (Webmaster) 2014–22

**Tuorla Observatory / University of Turku:** Council member 2000–04

**Exact Sciences Society** (Eksaktisten tieteiden seura r.y.): Lifetime member since 1993

- Council member (Secretary/Treasurer) 1993 – 2002
- Deputy council member 2002–04

**Council of Department of Physics / University of Turku:** Student member 1993–95

**Member in the Local Organising Committee of international conferences:**

"N-Body 2008 – N-body problem: numerical methods and applications" held in Turku, Finland on 10–14 August 2008

"7th European Workshop on Astrobiology" held in Turku, Finland on 22–24 October 2007

"Few-Body Problem: Theory and Computer Simulations" held in Turku, Finland on 4–9 July 2005

## Memberships in Scientific Societies

**International Astronomical Union (IAU):** Member since 2012

**Royal Astronomical Society (RAS):** Fellow since 2008

**Finnish Astronomical Society** (Suomen tähtitieteilijäseura ry): Member since 1996

**Tuorlan Astronomical Society** (Tuorlan tähtitieteellinen seura ry): Member since 2004

**Exact Sciences Society** (Eksaktisten tieteiden seura r.y.): Lifetime member since 1993

## Interests

Cultural activities: photography, drawing, painting, computer art

Social activities: making and playing (board and computer) games, voluntary work

Other activities: hiking, cooking, raising a wonderful 4 year old boy