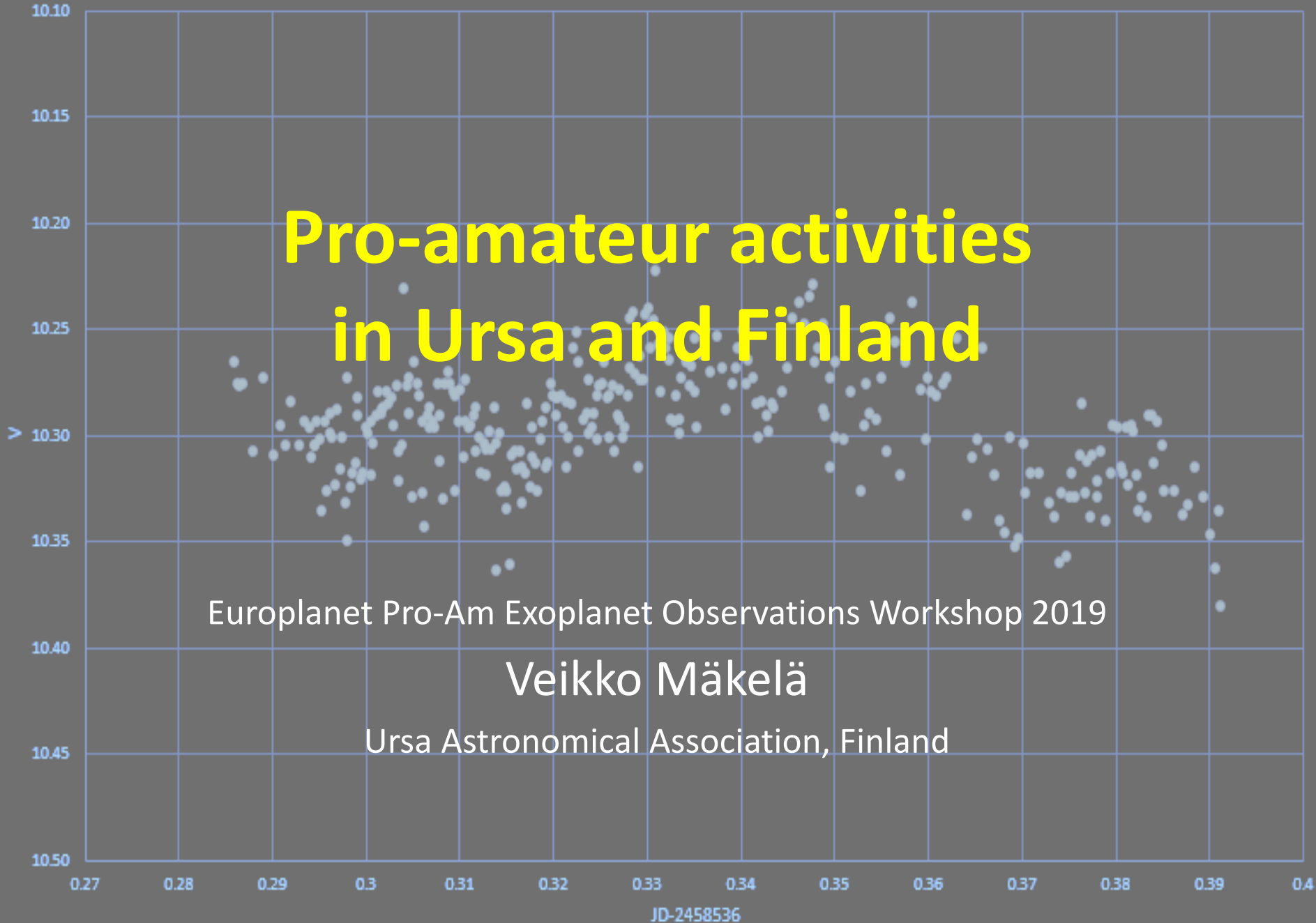


Pro-amateur activities in Ursa and Finland

Euromet Pro-Am Exoplanet Observations Workshop 2019

Veikko Mäkelä

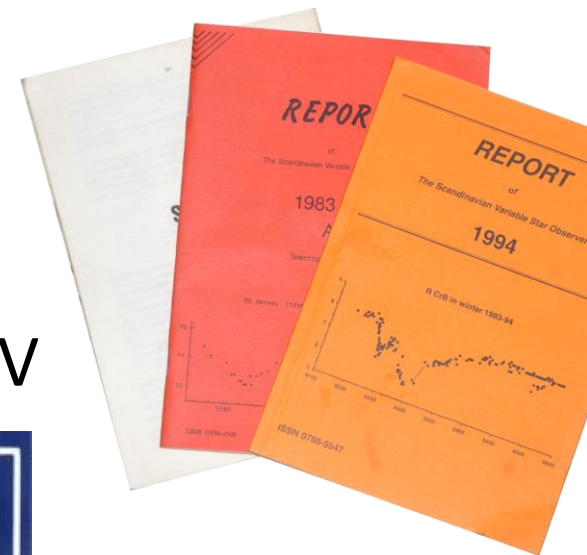
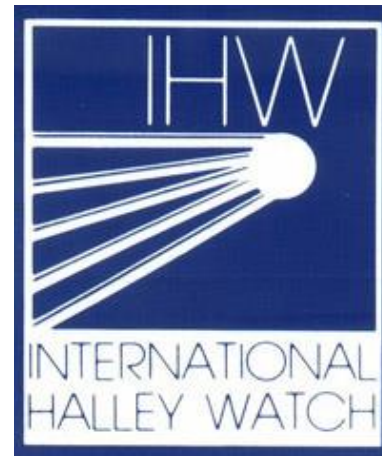
Ursa Astronomical Association, Finland



Background and history

Some pre-history of pro-am activities in Finland

- Variable stars have been observed since 1970's, first as a Scandinavian co-operation, contacts also to AAVSO, BAA, AFOEV
- International Halley Watch in the middle of 1980's



Observatory network

- In 1990's and 2000's several Finnish astronomical clubs started to build their countryside observatories
- In 2004 The Finnish Observatory Network was founded to share knowhow in construction and instrumentation of observatories
- Later also some private observatories joined to the network



PRO-AM network

- Gradually the activity of network shifted to supporting PRO-AM activities (instrumentation and method knowledge, campaigns, contacts)
- In 2014 the network renamed to The PRO-AM network
- In 2016 official status as an Ursa interest group, network renamed to The PRO-AM group

Group activities

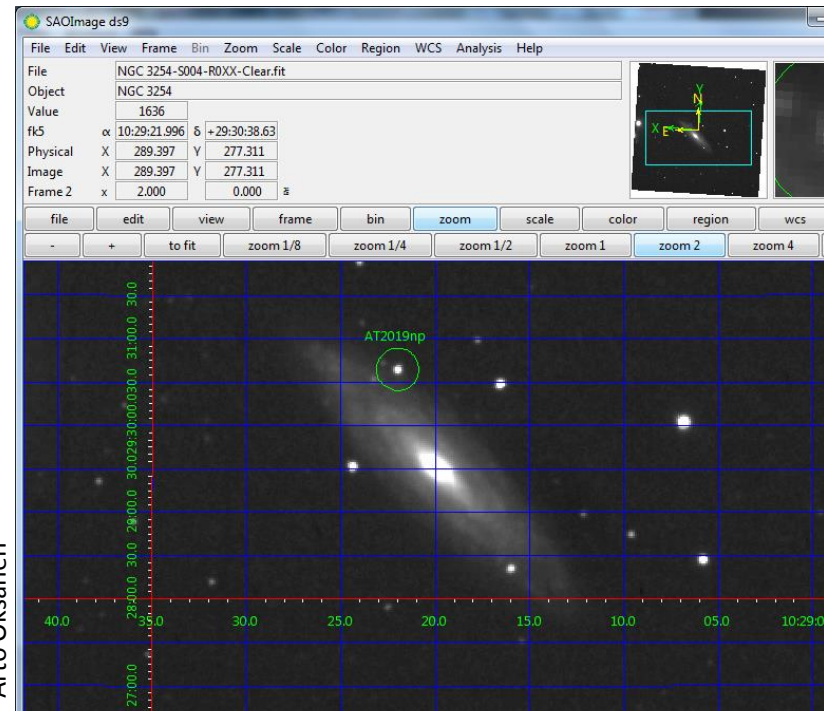
- The PRO-AM group is helping Finnish amateurs:
 - help in instrument and observational questions
 - training in research skills eg. CCD photometry
 - sharing information on PRO-AM observation programs and campaigns
 - building contact network between amateurs and professionals
 - participating scientific conferences



Ursa / PRO-AM group

Observational activities

- During the last decade the network members have participated in several PRO-AM projects, eg.
 - photometry of exoplanet transits
 - asteroid search and photometry, eg. NEO asteroids
 - observations of Jovian moon eclipses
 - supernova search
 - comet imaging and monitoring campaigns
 - photometry of variable stars
 - photometry of GRB optical afterglows



Some recent activities

- Exoplanet transit observations
 - more info in upcoming presentations
- Photometry of special variable stars
 - eg. black hole accretion disk MAXI J1820+070, new variable TCP J06373299-0935420, new supernovae
- Photometry of GRB optical afterglows
 - GRB 181201A, 1.12.2018
- 4*P coma morphology campaign
 - Near-UV (CN 387 nm) imaging of comets, eg. 46P/Wirtanen

Jorma Ryske

2018-12-26 01:04UT
46P/Wirtanen
J Ryske



305mmF2.9
Semrock 387nm
3x300s, 1,68"/px

N up, E Left
CometCIEF proc

Some observatories



Arto Oksanen

Hankasalmi
Observatory
(A91)



Jari Juutilainen

Taurus Hill
Observatory
(A95)



Jorma Koski

Artjarvi
Observatory