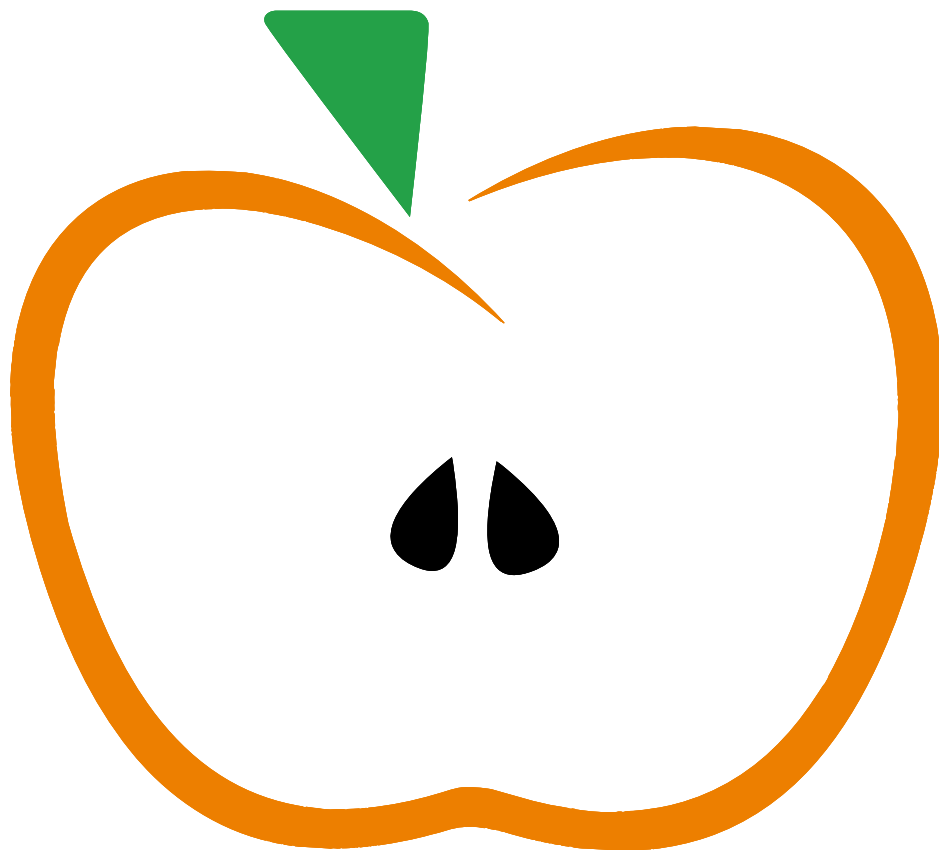


#aplseeds

DYALOG

APL Seeds 2021

Programme for APL Seeds '22



Tuesday 29 March 2021

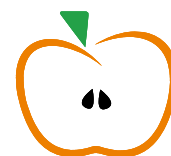
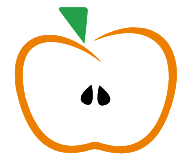


Table of Contents

Schedule: Tuesday 29 March	2
Abstracts: Dyalog Presentations	3
Abstracts: User Presentations	3
The Presenters	5
Miscellaneous	7



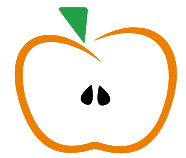
Schedule: Tuesday 29 March

14:00 – 14:30	(D01) Welcome to APL Seeds '22 Gitte Christensen & Rich Park
14:30 – 15:00	(D02) APL – Easy to Learn, Worth Mastering Rich Park
15:00 – 15:10	<i>break</i>
15:10 – 15:55	(U01) What's a k-mer? Stefan Kruger (IBM)
15:55 – 16:00	<i>break</i>
16:10 – 16:45	(U02) April: An APL Compiling To Common Lisp Andrew Sengul (BloxI)
16:45 – 17:00	<i>break</i>
17:00 – 18:00	(U03) The Array Cast Host: Conor Hoekstra (NVIDIA)

An informal discussion for anyone interested will take place on Zoom immediately after the closing session (host: Rich Park):

- Meeting ID: 825 178 581 57
- Passcode is the result of $\times/2022\ 3\ 29$

For Dyalog presentation abstracts see page 3.
For user presentation abstracts see pages 3-4.



Abstracts: Dyalog Presentations

D01: Welcome to APL Seeds '22

Gitte Christensen & Rich Park

Dyalog Ltd's CEO opens the user meeting and offers some perspective from her experience, before Rich talks about the APL community and the resources available to those just getting started.

D02: APL – Easy to Learn, Worth Mastering

Rich Park

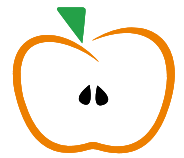
APL has a reputation for being difficult to read – but of course that's only true if you don't know how to read it! Rich offers a basic introduction to APL (like Hangul, you can probably learn enough to "read" in about 20 minutes), while acknowledging that it is the surrounding viewpoint, ways of thinking, approaches to problem solving, and ability to readily experiment with ideas, that make APL both more challenging and more rewarding.

Abstracts: User Presentations

U01: What's a k-mer?

Stefan Kruger, IBM (U.K.)

Stefan dips his toes into the world of Computational Genomics, discovering an area with real APL affinity. During his talk, he works through a couple of problems from [Project Rosalind](#), perhaps accidentally getting a bit of a starting point for future [APL Problem Solving Competition](#) solutions in the process, as problems from Project Rosalind occasionally provide inspiration for this!



U02: April: An APL Compiling To Common Lisp

Andrew Sengul, Bloxl (U.S.A.)

The [April](#) APL Compiler is a new entry in the APL field, compiling a subset of APL into the Common Lisp language and allowing APL functions to easily be used within Common Lisp programs. The array models of Common Lisp and APL are similar, making it easy to pass data between Common Lisp and APL, and functions and operators written in Common Lisp can easily be added to April workspaces.

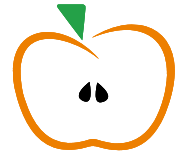
As with APL, developers using Lisp-family languages often interact with the language through a REPL, enabling an interactive style of development. This advantage extends to April, which benefits from Lisp's powerful set of development tools. Another unique benefit of April is the ability to easily extend and modify the language through a set of Lisp macros. You can build extensions to April, adding new functional characters in as little as 10 lines of code. Licensed under the permissive Apache 2.0 license, April has the potential to be customised for many use cases, and its close integration with Common Lisp allows it to be quickly integrated with many different external systems.

In this presentation, Andrew recounts the trials of developing and refining the April compiler. He also demonstrates Bloxl, a hardware startup powered by April that's creating lighted blocks that enable you to build walls, floors and other structures that also serve as light sources and visual displays. See APL used in ways you've never experienced before!

U03: The Array Cast

Host: Conor Hoekstra, NVIDIA (Canada)

Conor Hoekstra is the host of [The Array Cast](#), a panel-based podcast on array languages. Since launching a few months ago, Conor and his panellists have produced a series of extremely interesting podcasts, with special guests from many walks of Array Life. As the final session of APL Seeds '22, The Array Cast will be broadcast live.



The Presenters



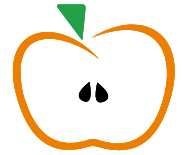
Gitte Christensen is CEO of Dyalog Ltd. She has worked as an APL programmer and consultant, headed development and sales of commercial software based on APL since 1983. In 2005 she ended up where she started, at an APL language vendor – but this time as the CEO. Gitte has taught many people APL for business purposes, including using the course material created by APL's inventor, [Ken Iverson](#).



Rich Park is one of the main APL instructors at Dyalog Ltd. He has taught APL at multiple schools, created an [online self-study course](#), and is a regular host of [Dyalog webinars](#).



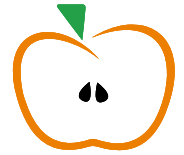
Stefan Kruger likes learning lesser-known programming languages, and discovered APL in about 2017. He's an occasional contributor to [Dyalog's blog](#), and an enthusiastic promoter for APL on the Mac. He holds a PhD in Computer Science, and works for IBM making databases.



Andrew Sengul is a full-stack software developer who has been using APL since 2016. He wrote [April](#), a compiler from APL to Common Lisp, which he uses to develop graphics for Bloxl, a hardware start-up producing architectural LED displays.



Conor Hoekstra is extremely passionate about programming languages, algorithms and beautiful code. He is the founder of the [Programming Languages Virtual Meetup](#), is the host of two podcasts ([Algorithms + Data Structures = Programs](#) and [ArrayCast](#)) and has a YouTube channel. Conor is the program chair for the [CppNorth conference](#) and is an avid conference speaker. You can find all of Conor's conference talks and podcast appearances [here](#).



Miscellaneous

Follow us on social media:

- FaceBook (<https://www.facebook.com/DyalogAPL>)
- LinkedIn (<https://www.linkedin.com/company/dyalog-ltd->)
- Twitter (<https://twitter.com/DyalogAPL>)

Useful Dyalog e-mail addresses:

- sales@dyalog.com
any non-technical questions related to Dyalog, for example, pricing information or licence purchase
- support@dyalog.com
any technical questions concerning Dyalog

Trademarks

All trademarks are the property of their respective owners.