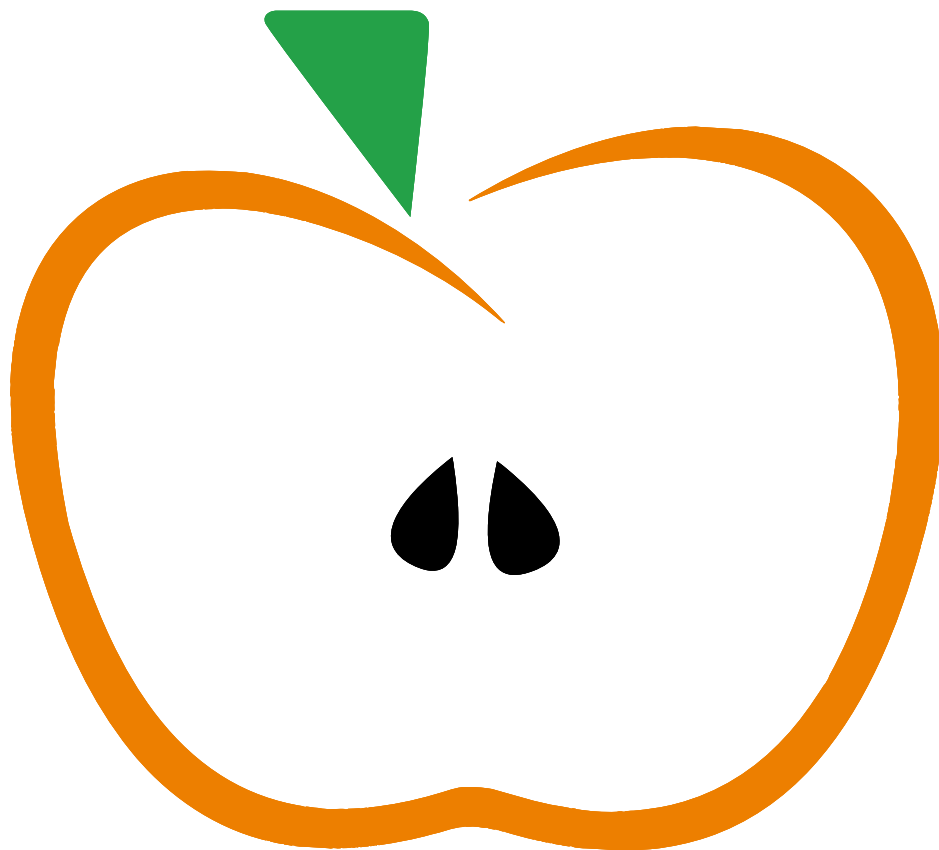# DYALOG
APL Seeds 2021

Programme for APL Seeds '21

Wednesday 31 March 2021
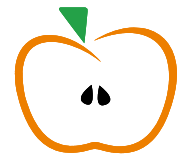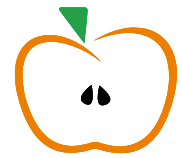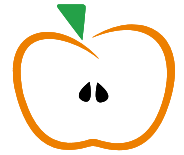
Table of Contents

Schedule: Wednesday 31 March

14:00 – 14:30	**(D01) Welcome to APL Seeds '21** Gitte Christensen & Richard Park
14:30 – 15:15	**(D02) Will You Play APL With Me?** Rodrigo Girão Serrão
15:15 – 16:00	**(U01) How an APL Prototype Helped Designing a Service** Martin Janiczek (GWI)
16:00 – 16:15	*break*
16:15 – 17:00	**(U02) Algorithms as a Tool of Thought** Conor Hoekstra (NVIDIA)
17:00 – 18:00	**(U03) Simulation and Gaming with APL** Tomas Gustafsson (Stormwind Ab Oy)
18:00 – 18:15	Closing session

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

- Meeting ID: 859 0855 9452
- Passcode is the result of 139×2039

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

Abstracts: Dyalog Presentations
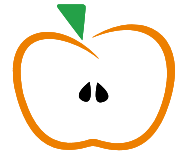
D01: Welcome to Dyalog '20
Gitte Christensen, Managing Director (CEO) & Richard Park

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

D02: Will You Play APL With Me?
Rodrigo Girão Serrão

Rodrigo showcases some of the interesting features and quirks of APL, like its affinity for mathematics, its ability to deal with large data sets, and its array-oriented programming style. After this session you should have a general idea of APL's capabilities and the potential it offers you, and hopefully you'll feel an urge to learn some more – either because you got hooked (like Rodrigo did!) or simply because you want to learn how to think in an array-oriented way, which is very relevant in many situations today, for example, when working with GPUs.

Abstracts: User Presentations

U01: How an APL Prototype Helped Designing a Service
Martin Janiczek, GWI (Czech Republic)

A service to be rewritten, with a bus factor of almost 0, and a tale of making sense of it and finding a performant future design using Dyalog APL.

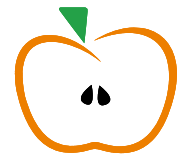### U02: Algorithms as a Tool of Thought
Conor Hoekstra, NVIDIA (Canada)

Kenneth Iverson won the Turing Award in 1979 for his work on APL. His 1979 Turing Award Lecture "Notation as a Tool of Thought" could just as easily been called "Algorithms as a Tool of Thought." In this talk, Conor explains why he believes this by showing how APL teaches you to think differently about solving problems.

U03: Tracing Hanneke Vrome Numerically
Tomas Gustafsson, Stormwind Ab Oy (Finland)

Tomas takes you through the API of a 3D-engine and shows you how to connect to it from APL, enabling you to create a simple scene with graphics objects moving in real-time. He also explores some of the more advanced rendering techniques.
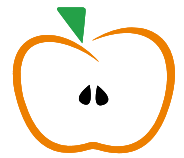
The Presenters

Gitte is CEO of Dyalog Ltd. She has extensive experience as an APL consultant, and has taught many people APL for business purposes, including using the course material created by APL's inventor, Ken Iverson.

Richard is one of the main APL teachers at Dyalog. He has taught APL at multiple schools, created an online self-study course, is a regular host of Dyalog Webinars, and has demonstrated APL on Twitch and YouTube.

Rodrigo has hosted numerous workshops teaching mathematics and programming (these are also the subjects of his active blog). Most recently he's been busy creating instructional APL videos and overhauling *Mastering Dyalog APL*, the principal Dyalog APL tutorial book.

Martin has extensive experience with, and passion for, bridging the gap between product managers and developers, employing empathy and well-tailored explanations in addition to writing prose and technical documentation. He is particularly skilled at performing experiments and producing prototypes to evaluate ideas, and has found APL well suited for this task.
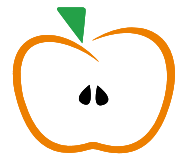
In addition to being a senior programmer at NVIDIA, Conor is a member of the C++ Standards Committee and frequent presenter at various programming events. Extremely passionate about programming languages, algorithms and beautiful code, he runs the Programming Languages Virtual Meetup and a YouTube channel with tens of thousands of subscribers, as well as creating blogposts and podcasts. APL has become his favourite language.

Tomas is a veteran APL programmer. He is the developer of the stunningly-realistic Stormwind simulator, which is used for Finnish navy and coast guard training. In 2019 he used APL to successfully locate the shipwrecked freighter M/S Irma, where multiple searches had failed during the 50 years since the ship sank.

Adám leads multiple efforts to lower the barrier of entry to the APL world, including the popular APL Orchard chat room and the APLcart code phrase collection. He regularly teaches APL to both beginners and more advanced users, through workshops, presentations, webinars, webcasts, blog posts, APL Wiki articles, and answers to questions on Stack Exchange.

Miscellaneous

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