CCP SyneRBI 6th Steering Panel Meeting 29th September 2023

Attendees:

Charalampos Tsoumpas (RU Groningen), Ciprian Catana (MGH), David Atkinson (UCL), Edoardo Pasca (STFC UKRI),), Evangelos Papoutsellis (STFC UKRI), Jamie McClelland (UCL), Jeffrey A Fessler (U Michigan), Julian Matthews (U Manchester), Kris Thielemans (UCL), Martin Turner (U Manchester), Zeljko Kereta (UCL), Ross Maxwell (Newcastle), M Jorge Cardoso (KCL), Simon Arridge (UCL), Paul Clegg (Edinburgh), Christoph Kolbitsch (PTB Berlin), , Georg Schramm (KU Leuven), Letizia Protopapa (STFC), Catriona Wimberley (Edinburgh), Simon Rit (Creatis, Lyon), Jakob Sauer Jørgensen, Simon Doran (ICR), Lefteris Livieratos (KCL), Andrew Reader (KCL),

Apologies from:

Matthias Erhardt (U Bath)

Minutes by David Atkinson

These minutes are complemented by the slides presented at the SP Meeting. Most material in the slides is not repeated here.

Agenda

- Approval of previous minutes
- Grant recap and SP changes
- Challenge proposal
- Brief recap of past activities and status of SyneRBI and CCPi
- Current projects
- Future activities (excluding the Challenge)

PET Image Reconstruction Challenge presented by Harry Tsoumpas.

Questions/Comments: End of challenge date definition not clear. At least one prize could be reserved for an external (non-SyneRBI) entry. Does forcing Open Access and projector limit potential industrial or academic participation?

Open Source requirement – impact not clear on submission rate. Will certainly require source code for evaluation, but this could be done without requiring open source. Suggestion to encourage, but

not force Open Source. If not Open Source, force explanatory paper? (as common in other challenges)

Number of expected participating groups not known.

Winning criteria: External? Speed? Quality? Open Source? How many separate prizes? Limit number of prizes per team? 1 per team member? Quality measure not clear. Assessed time will exclude any ML training time. Indicative count levels should be provided for validation sets.

From Zoom chat "This is the challenge Kris referred to earlier <u>https://www.fips.fi/HTCrules.php#anchor1</u>"

Projects Overview

See slides.

CIL Stochastic Optimisation: Two papers mentioned, question if it might be harder to publish API before the applications.

Letizia presented MCIR using SIRF and CIL optimisations.

Christoph Kolbitsch presented cardiac MR database using XNAT calling SIRF in Docker container for QA checking of data. Simon Doran noted that a 4D Dicom viewer should be available soon with XNAT (Christoph to send some data to Simon).

CCPI update

Martin Turner: First CIL User Meeting: Nov 13-15, 2023

https://ccpi.ac.uk/events/first-cil-user-meeting/

Future Activities and Meetings

See slides. (Presented by Kris on behalf of Matthias)

Possible combination of Advanced Image Reconstruction Algorithms workshop (including Challenge results) with IMA Inverse Problems meeting in Bath, September 2024

Noted: ICCR from July 8 to 11 if that can be avoided, <u>http://iccr2024.org/</u>, and, CT meeting in August with which it could be aligned <u>https://ct-meeting.org/</u>, and, Total Body PET (September, Groningen?) [All 2024?]

Lefteris Livieratos: "Would be good to extend any invitations to a workshop to our Medical Physics STP clinical scientists trainees (Health Education England)"

Ross and Julian may advertise or ask for suggestions at upcoming online PET meeting organised by Jane MacKewn (KCL).

Renewal of CCPs in general: no specific EPSRC decisions yet.

Encouragement to help with data for Challenge.