



Two-day workshop on Design of metallic powders for additive manufacturing – from scrap to resource

DTU, Kgs Lyngby Campus, August 23-24th, 2023

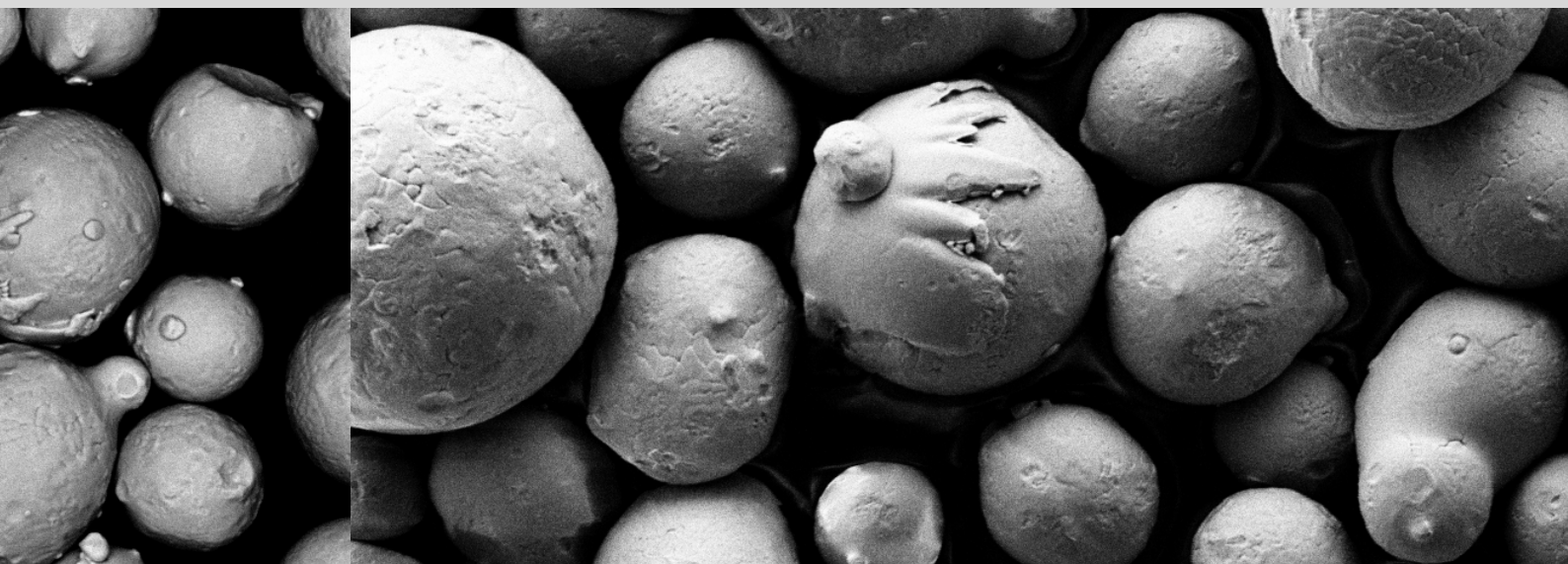
The introduction of additive manufacturing (AM) for fast net-shape production of metallic components has revolutionized and revitalized metals research during recent years. However, far too little focus has been devoted to the powders, which are the raw materials in the AM process. Two critical issues are that i) the powders used in AM are designed for conventional manufacturing and not targeted for the fast heating and cooling rates that are inherent to AM, and ii) the powders are produced from virgin material drawing unnecessarily on our limited natural resources. Standard methods for powder characterization are being used to evaluate AM powder, however, the existing international standards were established for general powder processes; therefore, addressing new strategies to characterize powder and link its properties to the printed components should be addressed.

The workshop will cover a wide variety of topics related to metallic powder for AM, including:

- Design of alloys for AM
- Powder production and characterization
- Relationship between powder quality and AM sample properties
- Life cycle and environmental system analysis of scrap upcycling
- Circular economy business scenarios for production and use of powder for AM
- Industrial interests and issues in metal AM

You will have the opportunity to hear from leading scientists and industry professionals, and engage in inspiring discussions on powder characterization, production techniques, and their applications in additive manufacturing. Additionally the workshop will include a tour to the recently established metal powder lab at DTU and the refurbished AM lab.

Join us, start the conversation on powder production for additive manufacturing, and stay informed about the latest developments in the field.



Keynote Speakers

Dr.-Ing. Iris Raffeis

RWTH Aachen University, Germany

“Using Scrap Metal for Powder Atomizing”

EPMA President Ralf Carlström

Höganäs AB, Sweden

“AM Powder – sustainability and other trends”

Regius Professor Philip Withers

Henry Royce Institute, The University of Manchester

“Mapping Defects in Additive Manufacture and their influence on Structural Integrity”

Professor Henrik Wenzel and Associate Professor Ciprian Cimpan

Southern University of Denmark

“Circularity, resource efficiency, and environmental performance in Additive Manufacturing”

Programme

The AM Workshop will start at 10:00 on August 23rd and end at 13:00 on August 24th.

The programme will consist of Keynote and Contributed talks as well as the official inauguration of the refurbished ‘Powder lab’.

Registration

Registration fee 2000 DKK, half price for students (covering 2 lunches, 1 dinner, coffee and the inauguration).

Short Abstracts (a few lines are enough) before July 15th.

Important Dates

June 16 th	Webpage available
July 15 th	Abstract submission
August 1 st	Registration deadline

Venue

Room 74

DTU Building 421

2800 Kgs. Lyngby, Denmark

Recommended accommodation: Zleep Lyngby

Contact

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