

An event by



4TH INTERNATIONAL WHEAT CONGRESS



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PRE CONFERENCE WORKSHOPS

BOLOGNA - ITALY

Sunday, May 24, 2026

Bologna Congress Center,
Piazza della Costituzione, 4

Conference Chair

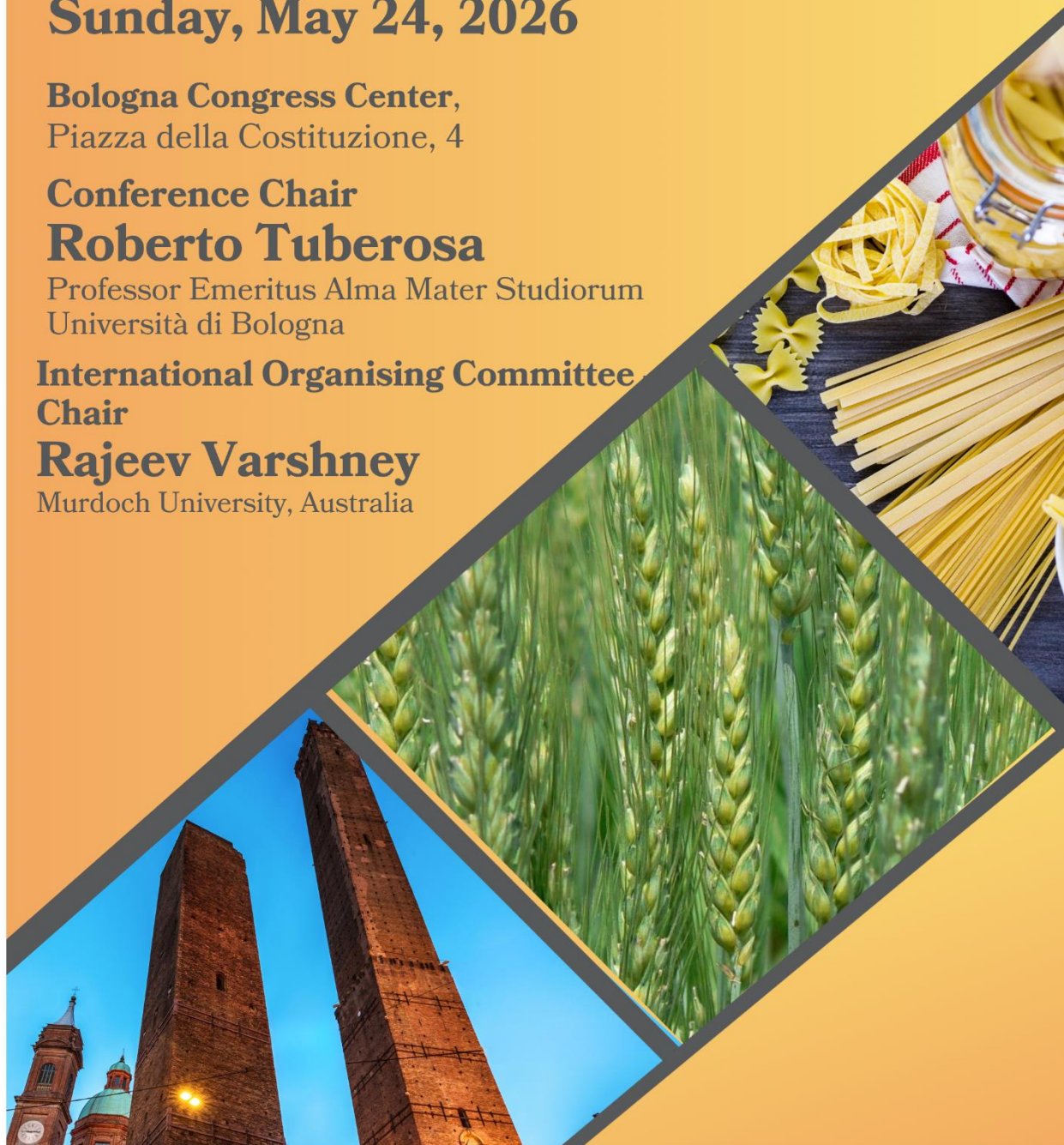
Roberto Tuberosa

Professor Emeritus Alma Mater Studiorum
Università di Bologna

International Organising Committee
Chair

Rajeev Varshney

Murdoch University, Australia



ACTUAL SCENARIO AND PERSPECTIVES FOR WHEAT PHRNOTYPING

ROOM 4

09:00 - 12:30



Avenue media®
Conference & Expo



iwc 4TH INTERNATIONAL
WHEAT CONGRESS

BOLOGNA, ITALY - MAY 25-29, 2026

Pre-conference Workshops
Sunday, 24 May 2026

ACTUAL SCENARIO AND PERSPECTIVES FOR WHEAT PHENOTYPING

Organized by the Wheat Initiative Phenotyping EWG

Room 4

Chair: Nicola Pecchioni (*CREA, Italy*), Michela Janni (*CNR, Italy*)

The Wheat Initiative Expert Working Group on Wheat Phenotyping presents:

Actual scenario and perspectives for wheat phenotyping

Wheat Initiative EWG Phenotyping workshop

Actual scenario and perspectives for wheat phenotyping

This workshop, part of the Annual Meeting of the EWG on Wheat Phenotyping (Wheat Initiative), will showcase actual, current advances and future directions in wheat phenotyping, bringing together early-career and senior researchers.

The session will highlight emerging approaches—such as AI-driven analysis, UAV-based spectral phenomics, and high-throughput methods—and how their integration with genetic, physiological, and multi-environment data is improving crop understanding and breeding decisions. It will also foster discussion on future EWG priorities.

Overall, the workshop aims to promote exchange and collaboration toward next-generation phenotyping for wheat improvement.



BOLOGNA, ITALY - MAY 25-29, 2026

Program

- 09:00 – 09:15 (Chairs) Welcome greetings and report on 2025 EWG Activities
- 09:15 - 10:30 Emerging Voices in Wheat Phenotyping: New Approaches and Perspectives from Early-Career Researchers
- 09:15 - 09:30 Subash Thapa
Smart Phenotyping for Smarter Resistance Breeding: AI-Based FHB Assessment in Wheat.
- 09:30 - 09:45 Akashdeep Kamboj
Integrating UAV-Driven Spectral Phenomics with Multi-Environment G×E Analytics to Enhance Hybrid Wheat Yield Prediction.
- 09:45 - 10:00 Firozeh Solimani
A Lightweight Semi-Automated Framework for Wheat Spike Segmentation and Spike-Level Phenotyping.
- 10:00 - 10:15 Becca Testa
Green Be Gone: Transcription Factor NAC3 Regulates Wheat Senescence.
- 10:15 - 10:30 Ajay Siluveru
High-Throughput Phenotyping and Functional Screening of Gamma-Irradiation Mutant Populations for Grain Nutritional Quality and Nitrogen Use Efficiency.
- 10:30 - 11:00 *Coffee break*



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11:00 - 12:00

The point of view of Senior Researchers

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12:00 - 12:15

Mariano Cossani - SARDI - South Australian Research and Development Institute.

Combining physiological and nutritional approaches for phenotyping wheat crops

12:15 - 12:20

Shannon Baker - Texas A&M AgriLife Research High Plains (To Be Confirmed)

12:20 - 12:30

Final Discussion and Design of 2026 EWG Activities