The Workshop will focus on the application of paramagnetic NMR, $^{13}$C direct detection methods and on solution structures of metalloproteins. Participants will be trained at the spectrometers, working with challenging systems such as proteins involved into the FeS cluster assembly machinery. They will acquire experience in the most recent NMR techniques specifically developed for paramagnetic metalloproteins and for $^{13}$C direct detection. Participants can bring their own samples.

The school is open to PhD students, postdocs and Early Career Investigators. A maximum number of 20 participants will be considered.

Applicants are invited to apply by submitting their CV and list of publications, before February 29th, at nmrtraining2020@cerm.unifi.it

The registration fee is 80 euros. It includes the participation in all the sessions, coffee breaks, lunches, shuttle bus transfer from Hotel, participation to social activities between the 25th and 26th of June. For participants attending also the Training Course “Fundamentals of magnetic resonance spectroscopies and metal trafficking” a comprehensive registration fee of 150 € is applied.

If you are a member of a laboratory affiliated with the TIMB3 Consortium you are eligible for support that will cover your registration and expenses. If you wish to apply for this support please submit a letter addressed to the course organizers indicating your current affiliation and outlining how your current research interests match the mission of the TIMB3 project, together with your application.

Full program available here
NMR of paramagnetic proteins and applications
25th - 26th June 2020
University of Florence, Scientific Campus, Sesto Fiorentino, Italy
CERM, Magnetic Resonance Center, via Luigi Sacconi 6, Sesto Fiorentino, Florence, Italy

Program
Thursday 25th

Morning lectures, Chair – Simone Ciofi Baffoni

9.00-10.30
Mario Piccioli (Univ. Florence): Paramagnetic NMR, the toolkit

10.30-11.0 Coffee Break

11.00-12.30
Roberta Pierattelli (Univ. Florence): $^{13}$C direct detection for biomolecular NMR

12.30-14.00 Lunch

Practicals

14.00-17.45
Parallel session

Paramagnetic NMR
Mario Piccioli (Univ. Florence): Fast acquisition and 1D NOEs

15.45-16.00 Coffee Break

$^{13}$C direct detection
Marco Schiavina and Isabella C. Felli (Univ. Florence): Multi dimensional $^{13}$C observed experiments: recovering the lost information

18.00 Transfer to Florence, Aperitif-dinner in Oltrarno

21.30 Sunset at Piazzale Michelangelo

Friday 26th

Morning lectures, Chair – Mario Piccioli

9.00-10.00
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Francesca Cantini (Univ. Florence): NMR structures of paramagnetic molecules

10.00-11.00
Michele Invernici (Univ. Florence): From relaxation rates to upper distance limits

11.00-11.30 Coffee Break

Practicals

Parallel session

11.30-16.00
Francesca Cantini (Univ. Florence): NMR assignment, structure calculations and overview

13.00-14.30 Lunch

Mario Piccioli (Univ. Florence): IR-HSQC-AP, R2-weighted-HSQC-AP and other (hopefully) fancy experiments

16.00-16.15 Coffee Break

16.15- to the end
Let’s try with your samples

Anytime

Closure