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The Italian perspective of the science of fast radio bursts: past and present efforts, the future

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One of the most enigmatic challenges in contemporary time domain radio astronomy is understanding the nature of fast radio bursts (FRBs). These millisecond-duration, highly coherent radio flashes predominantly originate from beyond our Galaxy.

In this presentation, I will review the extensive efforts of the Italian research community in uncovering the origins and physical mechanisms behind FRBs, since the early days to this field to the present era, particularly focusing on multi-frequency campaigns aimed at FRB sources. Additionally I will discuss Italy's significant role in the forthcoming Canadian Hydrogen Observatory and Radio-transient Detector (CHORD) telescope. With its expansive field of view and real-time detection and precise localisation capabilities, CHORD promises to revolutionise our understanding of these mysterious cosmic phenomena.

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