

Ref: FA01/DM/FESCS/2024



People's Democratic Republic of Algeria  
Ministry of Higher Education and Scientific Research  
University Ziane Achour of Djelfa  
Faculty of Exact Sciences and Computer Science  
Department of Mathematics



# Master's Thesis

**Domain :** Mathematics and Computer Science  
**Field :** Mathematics  
**Specialty :** Functional Analysis

Presented and defended by  
**Aboulerbah Gawba**

## Theme

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**Sobolev Spaces and Fourier Analysis of Tempered Distributions**

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Defended on: June 6<sup>th</sup>, 2024

Front of the jury:

MR.	Amar BENKERROUCHE	M.C.-A-	University of Djelfa	President.
MR.	Billal LEKDIM	M.C.-A-	University of Djelfa	Examiner.
MR.	Bilal BASTI	M.C.-A-	University of Djelfa	Supervisor.

Academic Year: 2023/2024



الجمهورية الجزائرية الديمقراطية الشعبية  
People's Democratic Republic of Algeria  
وزارة التعليم العالي والبحث العلمي  
Ministry of Higher Education and Scientific Research  
جامعة زيان عاشور الجلفة  
Ziane Achour University of Djelfa  
كلية العلوم الدقيقة والإعلام الآلي  
Faculty of Exact Sciences and Computer Science  
قسم الرياضيات  
Department of Mathematics



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Djelfa, on June 06<sup>th</sup>, 2024

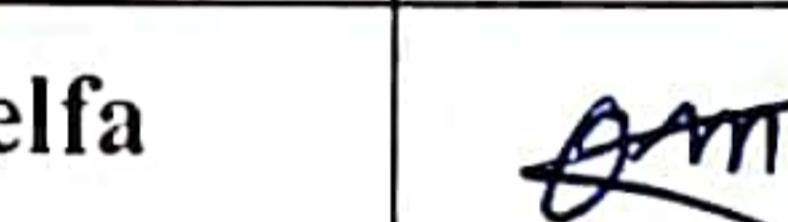
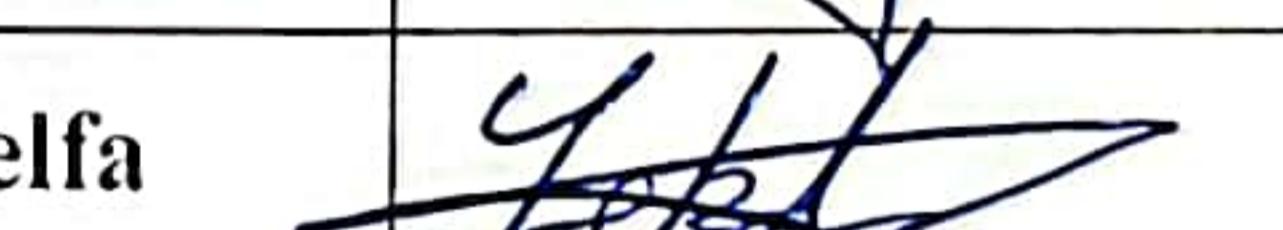
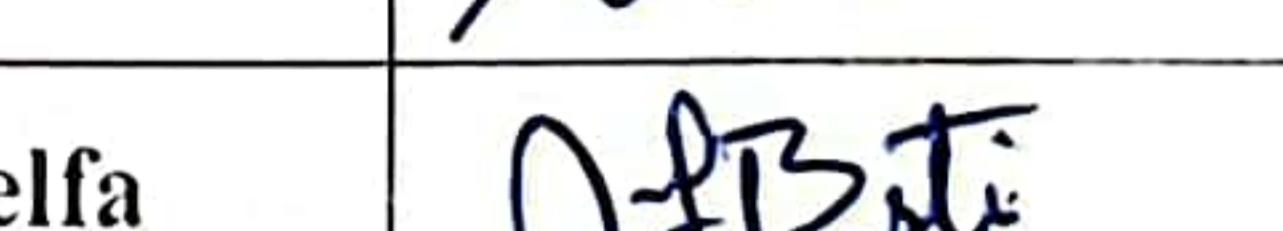
# MINUTES OF MASTER'S THESIS DEFENSE

FIELD	MATHEMATICS
SPECIALTY	FUNCTIONAL ANALYSIS (FA)
STUDENT'S NAME	ABOULERBAH GAWBA
STUDENT ID	191939025890
ACADEMIC YEAR	2023/2024

## THEME

# SOBOLEV SPACES AND FOURIER ANALYSIS OF TEMPERED DISTRIBUTIONS

## JURY MEMBERS:

Name	Rank	Role	Faculty/University	Signature
Amar BENKERROUCHE	M.C.-A-	President	FESCS/Djelfa	
Billal LEKDIM	M.C.-A-	Examiner	FESCS/Djelfa	
Bilal BASTI	M.C.-A-	Supervisor	FESCS/Djelfa	

**EVALUATION:** After deliberation, the jury members unanimously decided to accept the Master's thesis in Mathematics, specialty (FA), presented by the student Aboulerbah GAWBA and agreed to award the grade of 17/20.

## With the mention: Very Good

## Specialty Head

Mr. Amraoui Shiman

جامعة زيان عاشور  
كلية العلوم الدقيقة والجامعة  
مسؤول فريق الاختصاص تكوين ماستر  
تحليل دالي في قسم الرياضيات  
امضاء: عمراوي سليمان

## Department Head

Mr. Briki Mahrouk