

## 1. CURRICULUM VITAE

**Nom et prénom :** Fethi Soltani      **Grade :** Professeur      **Fonction :** Professeur à l'Université de Carthage, Tunis

**Date de naissance :** 14 /08/ 1973      **Nationalité:** Tunisiene

### 1. Cursus :

Dates d'obtention	Diplômes	Spécialités	Institutions
Session principale 1992	Baccalauréat	Mathématiques	Lycée Fernana
Session principale 1994	Diplôme Universitaires d'Etudes Scientifiques	Mathématiques et Physique	Faculté des Sciences de Tunis
Session principale 1996	Maîtrise En-Sciences Mathématiques	Mathématiques	Faculté des Sciences de Tunis
Juillet 1999	Diplôme d'Etudes Approfondies en Mathématiques	Mathématiques purs	Faculté des Sciences de Tunis
Décembre 2003	Thèse de Doctorat	Mathématiques	Faculté des Sciences de Tunis
Février 2008	Habilitation Universitaire	Mathématiques	Faculté des Sciences de Tunis

### 2. Expériences professionnelles :

Dates (Début-Fin)	Employeur	Poste
14/9/1999 - 16/9/2001	Faculté des Sciences Juridiques, Economiques et de Gestion de Jendouba	Enseignant vacataire de Mathématiques
17/9/2001 - 13/9/2004	Faculté des Sciences de Tunis	Assistant de Mathématiques
14/9/2004 - 22/11/2008	l'Ecole Supérieure de Technologie et d'Informatique à Carthage	Maître Assistant de Mathématiques

Dates (Début-Fin)	Employeur	Poste
23/11/2008 - 18/10/2013	l'Ecole Supérieure de Technologie et d'Informatique à Carthage	Maître de Conférences en Mathématiques
19/10/2013 - 1/9/2019	l'Ecole Supérieure de Technologie et d'Informatique à Carthage	Professeur de Mathématiques
2/9/2019 - 2022	l'Ecole Nationale d'Ingénieurs de Carthage	Professeur de Mathématiques

### Détachement à l'Agence Tunisienne de Coopération Technique:

Dates (Début-Fin)	Employeur	Poste
30/9/2007 - 25/9/2009	la Faculté des Sciences de l'Université de Jazan	Maître Assistant de Mathématiques
26/9/2009 - 23/8/2014	la Faculté des Sciences de l'Université de Jazan	Maître de Conférences en Mathématiques
24/8/2014 - 17/8/2019	la Faculté des Sciences de l'Université de Jazan	Professeur de Mathématiques

### 3. Modules assurés:(les 5 dernières années)

Modules assurés	Classes	Mots clés
Mathématiques pour l'Ingénieur	MECA1-GSI1	Fonctions intégrables, produit de convolutions, transformée de Fourier, distributions
Probabilité et Statistiques	MECA1-GSI1	Statistiques, variables aléatoires discrètes et continues, fiabilités, approximations des lois
Théorie des graphes	MECA1	Graphes orientés et non orientés, algorithme de tri topologique, algorithme de Dijkstra, l'algorithme de Welsh-Powell
Recherche Opérationnelle	MECA1	Simplexes, applications

#### 4. Domaines de recherche :

Thèmes de recherche	Mots clés
Analyse harmonique Analyse réelle Analyse fonctionnelle	Opérateurs de Dunkl, principe d'incertitudes, fonctions spéciales, espaces de Fock, multiplicateurs de Fourier

#### 5. Autres qualifications :

Compétences	Certificats (éventuellement)

#### 6. Autres activités pédagogiques/Autres activités de recherche

Dates	Activités
	<b>Encadrement mastère de recherche : Meriem Nenni :</b> <b>Sujet : Espace de Fock et transformation de Segal-Bargmann associés aux opérateurs de Dunkl</b> <b>Soutenance : 28/12/2021.</b>
	<b>Thèses de Doctorat soutenues :</b> <b>Saliha Aledawish:</b> <b>Sujet : Analyse harmonique pour l'opérateur de Whittaker et applications à la théorie des noyaux reproduisants</b> <b>Soutenance : 26/10/2022.</b>
	<b>Thèses de Doctorat en cours :</b> <b>1) Ibrahim Maktouf :</b> <b>Sujet : Quelques aspects de l'analyse harmonique associée à l'opérateur de Dunkl-Bessel</b> <b>Début 2019.</b> <b>2) Hanen Saadi :</b> <b>Sujet : Etude et applications de quelques espaces à noyau reproduisant associés à l'opérateur de Weinstein</b> <b>Début 2020.</b> <b>3) Meriem Nenni:</b> <b>Sujet : Espaces de Fock en dimension d et applications</b> <b>Début 2021.</b>

### 7. Affiliation à des associations/groupements professionnels :

Dates	Associations/groupements professionnels	Fonction
1999-2023	Société mathématique de Tunisie	Membre
	Laboratoire d'Analyse Mathématique et Applications LR11ES11	

### 8. Langues : (bon, moyen, passable)

Langue	Lu	Parlé	Écrit
Arabe	Bon	Bon	Bon
Français	Bon	Bon	Bon
Anlais	Bon	Bon	Bon

## 9. Publications:(Les plus pertinentes)

- [1] M. Sifi, F. Soltani, Generalized Fock spaces and Weyl relations for Dunkl kernel on the real line, *Journal of Mathematical Analysis and Applications*, 270(1) (2002) pp. 92-106. DOI:[10.1016/S0022-247X\(02\)00052-5](https://doi.org/10.1016/S0022-247X(02)00052-5)
- [2] F. Soltani, Generalized Fock spaces and Weyl commutation relations for the Dunkl kernel, *Pacific Journal of Mathematics*, 214(2) (2004) pp. 379-397. DOI: [10.2140/pjm.2004.214.379](https://doi.org/10.2140/pjm.2004.214.379)
- [3] F. Soltani,  $L_p$  – Fourier multipliers for the Dunkl operator on the real line, *Journal of Functional Analysis*, 209(1) (2004) pp. 16-35. DOI:[10.1016/j.jfa.2003.11.009](https://doi.org/10.1016/j.jfa.2003.11.009)
- [4] F. Soltani, Littlewood-Paley operators associated with the Dunkl operator on  $\mathbb{R}$ , *Journal of Functional Analysis*, 221(1) (2005) pp. 205-225. DOI: [10.1016/j.jfa.2004.10.001](https://doi.org/10.1016/j.jfa.2004.10.001)
- [5] F. Soltani, Littlewood-Paley  $g$ -function in the Dunkl analysis on  $\mathbb{R}^d$ , *Journal of Inequalities in Pure and Applied Mathematics*, 6(3) (2005) Art. 84 13 pages.
- [6] F. Soltani, Inversion formulas in the Dunkl-type heat conduction on  $\mathbb{R}^d$ , *Applicable Analysis*, 84(6) (2005) pp. 541-553. <http://dx.doi.org/10.1080/00036810410001731492>
- [7] F. Soltani, Practical inversion formulas in a quantum mechanical system, *Applicable Analysis*, 84(8) (2005) pp. 759-767. <http://dx.doi.org/10.1080/00036810500047972>
- [8] F. Soltani, Results on weighted Fock spaces, *Integral Transforms and Special Functions*, 17(4) (2006) pp. 295-306. <http://dx.doi.org/10.1080/10652460500105719>

- [9] F. Soltani, Ranges and inversion formulas for the Dunkl intertwining operator and its dual, *Integral Transforms and Special Functions*, 17(5) (2006) pp. 379-390. <http://dx.doi.org/10.1080/10652460500105750>
- [10] A. Gasmi, M. Sifi, F. Soltani, Herz-type Hardy spaces for the Dunkl operator on the real line, *Fractional Calculus & Applied Analysis*, 9(3) (2006) pp. 287-306. <https://eudml.org/doc/11280>
- [11] F. Soltani, Corrigendum to "Lp-Fourier multipliers for the Dunkl operator on the real line"[J. Funct. Anal. 209 (2004) 16–35] *Journal of Functional Analysis* 242 (2) (2007) pp. 672-673. <https://doi.org/10.1016/j.jfa.2003.11.009>.
- [12] F. Soltani, Sonine transform associated to the Dunkl kernel on the real line, *Symmetry, Integrability and Geometric: Methods and Applications*, 4(092) (2008) 14 pages. <http://dx.doi.org/10.3842/SIGMA.2008.092>
- [13] F. Soltani, Paley type inequality on the Hardy type space in the Dunkl setting, *Archiv der Mathematik*, 95 (2010) pp. 35-44. DOI 10.1007/s00013-010-0143-z
- [14] F. Soltani, Best approximation formulas for the Dunkl L2-multiplier operators on  $\mathbb{R}_d$ , *Rocky Mountain Journal of Mathematics*, 42(1) (2012) pp. 305-328. DOI:10.1216/RMJ-2012-42-1-305
- [15] F. Soltani, Heisenberg-Pauli-Weyl uncertainty inequality for the Dunkl transform on  $\mathbb{R}_d$ , *Bulletin of the Australian Mathematical Society*, 87(2) (2013) pp. 316-325. DOI:10.1017/S0004972712000780
- [16] F. Soltani, Multiplier operators and extremal functions related to the dual Dunkl-Sonine operator, *Acta Mathematica Scientia*, 33B(2) (2013) pp. 430-442. DOI:10.1016/S0252-9602(13)60010-7
- [17] F. Soltani, A general form of Heisenberg-Pauli-Weyl uncertainty inequality for the Dunkl transform, *Integral Transforms and Special Functions*, 24(5) (2013) pp. 401-409. <http://dx.doi.org/10.1080/10652469.2012.699966>

- [18] F. Soltani, Extremal functions on Sobolev-Dunkl spaces, *Integral Transforms and Special Functions*, 24(7) (2013) pp. 582-595. <http://dx.doi.org/10.1080/10652469.2012.725167>.
- [19] F. Soltani, Maximal Bochner-Riesz operators on Hardy-type spaces in the Dunkl setting, *Integral Transforms and Special Functions*, 24(8) (2013) pp. 613-627. <http://dx.doi.org/10.1080/10652469.2012.727087>
- [20] F. Soltani, Extremal functions on Sturm-Liouville hypergroups, *Complex Analysis and Operator Theory*, 8(1) (2014) pp. 311-325. DOI 10.1007/s11785-013-0303-9
- [21] F. Soltani, Lp uncertainty principles on Sturm-Liouville hypergroups, *Acta Mathematica Hungarica*, 142(2) (2014) pp. 433-443. DOI: 10.1007/s10474-013-0360-6
- [22] F. Soltani, Operators and Tikhonov regularization on the Fock space, *Integral Transforms and Special Functions*, 25(4) (2014) pp. 283-294. <http://dx.doi.org/10.1080/10652469.2013.839666>
- [23] F. Soltani, Pitt's inequality and logarithmic uncertainty principle for the Dunkl transform on  $\mathbb{R}$ , *Acta Mathematica Hungarica*, 143 (2) (2014) pp. 480-490. DOI: 10.1007/s10474-014-0415-3
- [24] F. Soltani, Pitt's inequalities for the Dunkl transform on  $\mathbb{R}^d$ , *Integral Transforms and Special Functions*, 25(9) (2014) pp. 686-696. <http://dx.doi.org/10.1080/10652469.2014.898142>
- [25] F. Soltani, Dunkl multiplier operators and applications, *Integral Transforms and Special Functions*, 25(11) (2014) pp. 898-908. <http://dx.doi.org/10.1080/10652469.2014.938650>

- [26] F. Soltani, A. Nemri, Analytical and numerical approximation formulas for the Fourier multiplier operators, *Complex Analysis and Operator Theory*, 9(1) (2015) pp.121-138. DOI 10.1007/s11785-014-0386-y
- [27] F. Soltani, Inversion formulas for the Dunkl-type Segal-Bargmann transform, *Integral Transforms and Special Functions*, 26(5) (2015) pp. 325-339. <http://dx.doi.org/10.1080/10652469.2015.1004331>
- [28] F. Soltani, A. Nemri, Analytical and numerical applications for the Fourier multiplier operators on  $\mathbb{R}^n \times (0, \infty)$ , *Applicable Analysis*, 94(8) (2015) pp. 1545-1560. <http://dx.doi.org/10.1080/00036811.2014.937432>
- [29] A. Nemri, F. Soltani,  $L_p$  uncertainty principles for the Fourier transform with numerical aspect, *Applicable Analysis*, 95(5) (2016) pp. 931-943. <http://dx.doi.org/10.1080/00036811.2015.1043282>
- [30] F. Soltani, Tikhonov regularization for Dunkl multiplier operators, *Kodai Mathematical Journal*, 39(2) (2016) pp. 399-409. <https://projecteuclid.org/euclid.kmj/1467830146>
- [31] F. Soltani, Some examples of extremal functions on the Dunkl-type Fock space  $F_k(C)$ , *Complex Analysis and Operator Theory* 10 (7) (2016) pp. 1501-1517. DOI 10.1007/s11785-015-0484-5
- [32] F. Soltani, H. Yazidi, Existence of solutions for a non-variational system of elliptic PDE's via topological methods, *Electronic Journal of Differential Equations*, 2016(309) (2016) pp. 1-13. URL: <http://ejde.math.txstate.edu> or <http://ejde.math.unt.edu>
- [33] F. Soltani, A. Nemri, Analytical and numerical approximation formulas on the Dunkl-type Fock spaces, *Acta Mathematica Vietnamica*, 42(1) (2017) pp.129-147. DOI: 10.1007/s40306-016-0188-6



- [34] F. Soltani, Uncertainty principles for the Dunkl-type Segal-Bargmann transform, *Complex Analysis and Operator Theory*, 11(3) (2017) pp. 475-490. DOI: 10.1007/s11785-016-0588-6
- [35] A. Nemri, F. Soltani, Analytical approximation formulas in quantum calculus, *Mathematics and Mechanics of Solids*, 22(11) (2017) pp. 2075-2090. <https://doi.org/10.1177/1081286516657683>
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- [37] F. Soltani, S.B. Rejeb, Heisenberg uncertainty principles for the Dunkl multiplier operators. *Journal of Mathematical Sciences* 228(6) (2018) pp. 695-704. DOI 10.1007/s10958-017-3657-0
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- [39] F. Soltani, Fock-type spaces associated to higher-order Bessel operator, *Integral Transforms and Special Functions* 29(7) (2018) pp. 514-526. <https://doi.org/10.1080/10652469.2018.1462806>
- [40] F. Soltani, A variety of uncertainty principles for the Dunkl transform on  $\mathbb{R}^d$ , *Asian-European Journal of Mathematics*, 14(5) (2021) 2150077 (9 pages). <https://doi.org/10.1142/S1793557121500777>
- [41] F. Soltani, Uncertainty principles of Heisenberg type on Dirichlet space, *Annali Dell'Universita' Di Ferrara* 67(1) (2021) pp. 191-202. <https://doi.org/10.1007/s11565-021-00355-9>

- [42] F. Soltani, Uncertainty principles of Heisenberg type for the Bargmann transform, *Afrika Matematika*, 32 (7) (2021) pp. 1629–1643.  
<https://doi.org/10.1007/s13370-021-00924-3>
- [43] F. Soltani, S. Aledawish, Whittaker-Stockwell transform and Tikhonov regularization problem, *Journal of Mathematical Sciences*, 2022, Vol. 264, No. 5, 633-647. DOI 10.1007/s10958-022-06022-4.
- [44] F. Soltani, Uncertainty inequalities for a family of weighted Dirichlet spaces, accepted for publication in *Proceedings of the Institute of Mathematics and Mechanics, National Academy of Sciences of Azerbaijan*, 2022, Vol. 48, No. 2, 214-223.
- [45] F. Soltani, S. Aledawish, Generalization of Titchmarsh's theorem for the modified Whittaker transform, *Integral Transforms and Special Functions*, 2023, Vol. 34, No. 3, 261-273.
- [46] F. Soltani, Reproducing kernel Hilbert spaces (RKHS) for the higher-order Bessel operator, accepted for publication in *Boletín de la Sociedad Matemática Mexicana*, 2023. 29:20.
- [47] F. Soltani, I. Maktouf, W. Nefzi, Heisenberg-type uncertainty principles for the Dunkl-Weinstein transform, accepted for publication in *Asian-European Journal of Mathematics*, 2023.
- [48] F. Soltani, M. Nenni, Difference and primitive operators on the Dunkl-type Fock space  $F(\mathbb{C}^d)$ , accepted for publication in *Journal of Mathematical Sciences*, 2023.
- [49] F. Soltani, Uncertainty inequality on weighted Hardy spaces, accepted for publication in *Georgian Mathematical Journal*, 2023.
- [50] F. Soltani, H. Saadi, Inversion formula and uncertainty inequalities for the Weinstein-type Segal-Bargmann transform, accepted for publication in *Integral Transforms and Special Functions*, 2023.

[51] F. Soltani, I. Maktouf, Localization operators and inversion formulas for the Dunkl-Weinstein-Stockwell transform, accepted for publication in Georgian Mathematical Journal, 2023.

## 10. Liens personnels :

<https://scholar.google.com/citations?user=JoMz7uIAAAAJ&hl=fr&oi=ao>

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<https://loop.frontiersin.org/people/939217/overview>

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