

Tabla de Contenido

1. Introduction	1
2. Preliminaries	12
2.1. Fermi coordinates near any CMC surface	12
2.2. Formal approximation of the solution concentrating on any CMC surface Σ	15
2.3. The Delaunay unduloids	20
2.4. Jacobi operator on Delaunay surface	22
3. Proof of the Theorem 1.1	25
3.1. The Lyapunov-Schmidt reduction	25
3.2. Linear theory for the model problem	28
3.3. The linear problem in the whole space.	38
3.4. Proof of Theorem 1.1	42
4. Proof of the Theorem 1.2	46
4.1. Further properties of the radially symmetric solution and the linearised operator for the periodic Delaunay solution	46
4.2. The linearized operator near D_τ	47
4.3. The Fourier-Laplace transform of L_{w_τ}	52
4.4. Mapping properties of L_{w_τ} in weighted Sobolev spaces	54
4.5. The deficiency space and the kernel of L_{w_τ}	64
Bibliografía	70