Notation

2.1 $\mathbb{R}^m$, $M(f, x, \varepsilon)$, $f^*(x)$, $C^+(E)$, $C^-(E)$, $\chi_G$, $\chi_F$, $\Gamma_A$, $F^A$, $K$, $M(f, K)$, $K_n$, $K_{\text{max}}$.

2.2 $\sigma(G)$, $\mu$, $G_0(\mu)$, $\sup \mu$, $M(G)$, $\mu_F(E)$, $\nu$, $\mathcal{M}^d$, $\nu^+$, $\nu^-$, $|\nu|$, $\sup \phi$, $\rightarrow$, $\bar{E}$, $\overline{E}$, $\sigma(\mathbb{R}^{m_1} \times \mathbb{R}^{m_2})$, $\Phi_1 \otimes \Phi_2$, $\mu_1 \otimes \mu_2$.

2.3 $\varphi_n \overset{D}{\longrightarrow} \varphi$, $\alpha(t)$, $\alpha_x(t)$, $\psi_x(t)$, $\langle f, \varphi \rangle$, $\langle \delta_x, \varphi \rangle$, $\langle \delta_x(n), \varphi \rangle$, $\langle \mu, \varphi \rangle$, $\langle \alpha f, \varphi \rangle$, $\langle f_1 + f_2, \varphi \rangle$, $\langle \varphi, f \rangle$, $f|_{G_1}$, $\cos \rho(\phi)$.

2.4 $\Delta_{\varphi_0}$, $E_{\varphi}(x)$, $\theta_{\varphi}$, $G(x, y, \Omega)$, $G(x, y, K_{a, R})$.

2.5 $\Pi(x, \mu, D)$, $G_N(x, y)$, $\Pi_N(x, \mu, D)$, $\Pi(z, \mu)$, $\text{cap}_G(K, D)$, $\text{cap}_m(K)$, $\text{cap}_m(D)$, $\text{cap}_m^e(E)$, $\text{cap}_m^i(E)$, $\text{cap}(K)$.

2.6 $M(x, r, u)$, $N(x, r, u)$, $E^\varepsilon$, $D^-\varepsilon$, $u_\varepsilon(x)$, $K_R$, $M(r, u)$, $\mu(r, u)$, $M(r, u)$, $N(r, u)$, $M(z)$.

2.7 $\tilde{u}(x)$, $\mu_x(t)$, $E(\alpha, \alpha', \varepsilon, \mu)$, $E_{n, \delta_0}$.

2.8 $a(r)$, $\rho[a]$, $\sigma[a]$, $\rho(r)$, $\sigma[a, \rho(r)]$, $V(r)$, $L(r)$, $\delta S H(\mathbb{R}^m)$, $T(r, u)$, $\rho T[u]$, $\sigma_T[u]$, $\sigma_T[u, \rho(r)]$, $\rho_M[u]$, $\sigma_M[u]$, $\sigma_M[u, \rho(r)]$, $\rho[\mu]$, $\check{\Delta}[\mu]$, $\check{\Delta}[\mu, \rho(r)]$, $N(r, \mu)$, $\rho_N[\mu]$, $\delta M(\mathbb{R}^m)$.

2.9 $H(z, \cos \gamma, m)$, $G(x, y, \mathbb{R}^m)$, $D_k(x, y)$, $H(z, \cos \gamma, m, p)$, $G_p(x, y, m)$, $G_p(z, \zeta, 2)$, $\Pi(x, \mu, p)$, $\delta S H(\rho)$, $\Pi R_x(x, \nu, \rho - 1)$, $\Pi R_x(x, \nu, \rho)$, $\delta R(x, \nu, \rho)$, $\delta R(z, \nu, \rho)$, $\delta R(x, u, \rho)$, $M(r, \delta)$, $\Delta[\mu, \rho(r)]$, $\Omega[u, \rho(r)]$, $T(r, \lambda, >)$, $T(r, \lambda, <)$.

3.1 $V_t$, $P_t$, $S H(\mathbb{R}^m, \rho, \rho(r))$, $S H(\rho(r))$, $u_t(x)$, $\text{Fr}[u, \rho(r)]$, $V_*, \mathbb{R}^m$, $U[\rho, \sigma]$, $U[\rho]$, $U[\rho, \nu[t]]$, $M(\mathbb{R}^m, \rho(r))$, $\mu \in M(\rho(r))$, $\text{Fr}[\mu, \rho(r)]$, $\text{Fr}[\mu, \rho(r), V_*, \mathbb{R}^m]$, $\text{Fr}[\mu]$, $M[\rho, \Delta]$, $M[\rho], \nu[t]$.

3.2 $h(x, u)$, $h(x, u)$, $l_\omega(x)$, $x^0(x)$, $T_\rho$, $G_1(\phi, \psi)$, $\Pi_1(\phi, ds)$, $TC_\rho$, $C_\Omega$.

3.3 $\bar{\Delta}(G, \mu)$, $\bar{\Delta}(E, \mu)$, $\check{\Delta}(K, \mu)$, $\check{\Delta}(E, \mu)$, $C_\Omega(I)$, $\bar{\Delta}^c(E)$, $\check{\Delta}^{\text{cl}}(E)$, $\Omega(E)$, $\Omega^c(\epsilon)$.

4.1 $T^t$, $(T^*, M)$, $d(\bullet, \bullet)$, $\Omega(T^*)$, $C(m)$, $\Omega(m)$, $A(m)$, $T_{iv}$. 
4.2 $U_0, \beta(x), b_0, k(s), R(x), Str(\delta), v(x|t), v(\bullet, t)$

4.3 $w(\bullet|t), w(\bullet|\bullet)$.

4.4 $u, (u)_t, Fr[u], U[p]$. 

5.1 $M(r, f), T(r, f), \rho_T[f], \rho_M[f], \sigma_T[f, \rho(r)], \sigma_M[f, \rho(r)], n(K_r), n(r), \rho[n], \Delta[n], N(r, n), \rho_N[n], \Delta_N[n], p[n], Fr[f], Fr[n], Mer(\rho, \rho(r))$.

5.2 $\alpha - \text{mes} C, C_0^0, C_0^0$.

5.3 $\|g\|_p$.

5.4 $h_1(\phi, f), h_2(\phi, f), h(\phi, f)$.

5.5 $N(\delta, \chi), (\chi) \int f d\delta, (\chi) \int_F f d\delta, \delta(\Theta^F), D_{r, \Theta}, \delta_z(D_{r, \Theta}), A^{cl}(\delta, \chi\Theta)$.

5.7 $F(u), H(u), T(u), M(\alpha(u), M(u), I_{\alpha}(u), I(u, g), F[f], F[f], \chi H, \chi I, \chi_F, \chi_F')$.

5.8 $K_{S_1}, S_1, G(t, \gamma, \rho), \hat{G}(s, S_1 - S), (Fv)(s)$.

6.1 $H(z), m(z, v, H), G_H, D_H, U_{\text{ind}}, \hat{U}_{\text{ind}}$.

6.2 $T_\rho^T, D'(T_\rho^T), q(z), L_\rho, E_\rho(\bullet - \zeta), E'_\rho(\bullet - \zeta), q_D, G_\rho(z, \zeta, D), H_\rho(q)$.

6.3 $\Lambda, \Phi_\Lambda(\lambda), \exp \Lambda, A(G), h_\Lambda(\phi), G_\Lambda, \alpha G_1 + \beta G_2, \Theta_\Lambda, I_\Lambda, d_\Lambda, h_G(\phi), m(\lambda, G, v), H(\lambda), q_\Lambda(z), D(G, \Lambda), \rho(\Lambda, G), g_Gq, G_G, D_G, \text{MIN}, J_G(\Lambda), \text{HARM}, m(\phi, G, h), E(\phi)$. 

Notation
List of Terms

2.1 upper semicontinuous regularization
upper semicontinuous function
lower semicontinuous function

2.2 measure
mass distribution
support of $\mu$
$\mu$ is concentrated on $E \in \sigma(G)$
restriction of $\mu$ onto $F \in \sigma(G)$
charge
positive and negative, respectively, variations of $\nu$
full variation of $\nu$
variation
Borel function
restriction of $\mu$ on the set $E$
product of measures

2.3 linear space
topological space
linear continuous functional on $\mathcal{D}$
Schwartz distribution
Dirac delta-function
the $n$th derivative of the Dirac delta-function
regular distribution
positive distribution
product of a distribution $f$ by
an infinitely differentiable function $\alpha(x)$
sum of distributions $f_1$ and $f_2$
partial derivative of distribution
sequence of distributions $f_n$ converges to a distribution $f$
regularization of the distribution $f$
restriction of distribution $f \in \mathcal{D}'(G)$ to $G_1 \subset G$
fundamental solution of $L$ at the point $y$

**spherical** operator

### 2.4 harmonic distribution
Lipschitz boundary, Lipschitz domain
harmonic measure
spherical function of a degree $\rho$
Green potential of $\mu$ relative to $D$
Newton potential
logarithmic potential

### 2.5 balayage, sweeping
Green capacity of the compact set $K$ relative to the domain $D$
Wiener capacity
external and inner capacity of any set $E$
capacible set
logarithmic capacity
irregular point
equilibrium mass distribution
$h$-Hausdorff measure
Carleson measure

### 2.6 mean value of $u(x)$ on the sphere $S_{x,r} := \{ y : |y - x| = r \}$
subharmonic function
the least harmonic majorant of $u$ in $K$
Riesz measure of the subharmonic function $u$

### 2.7 precompact family of functions
a sequence $f_n$ of locally summable functions converges in $L_{loc}$
 quasi-everywhere convergence
a sequence of functions $u_n$ converges to a function $u$ relative to
$\alpha$-Carleson measure
a point $x \in \mathbb{R}^m$ $(\alpha, \alpha', \epsilon)$-normal with respect to the measure $\mu$

### 2.8 order of $a(r)$
type number of $a(r)$
a($r$) of minimal type
a($r$) of normal type
a($r$) of maximal type
convergence exponent for the sequence $\{r_j\}$
a proximate order with respect to order $\rho$
equivalent proximate orders
type number with respect to a proximate order
proper proximate order
Nevanlinna characteristic
order of \(u(x)\) with respect to \(T(r)\)
characteristics \(\rho_M[u], \sigma_M[u], \sigma_M[u, \rho(r)]\)
convergence exponent of \(\mu\)
upper density of \(\mu\)
genus of \(\mu\)
\(N\)-order of \(\mu\)
\(N\)-type of \(\mu\)

2.9 Gegenbauer polynomials
Chebyshev polynomials
primary kernel
canonical potential
zero distribution
canonical Weierstrass product

3.1 limit set of the function \(u(x)\)
limit set of the mass distribution \(\mu\)

3.2 indicator of growth of \(u\)
lower indicator
\(\rho\)-subspherical function
\(\rho\)-trigonometrically convex (\(\rho\)-t.c.)
fundamental relation of indicator

3.3 upper (lower) density of \(\mu\)
subadditivity of \(\Delta(E, \bullet)\)
superadditivity of \(\Delta(E, \bullet)\)
semi-additivity
generalized semi-additivity
monotonic function of \(E \in \mathbb{R}^m\)
t-extension of \(E\)
to be dense in
angular densities

4.1 dynamical system
\((\epsilon, s)\)-chain from \(m\) to \(m'\)
chain recurrent dynamical system
non-wandering point
attractor
completely regular growth
polygonally connected set
periodic dynamical system
4.2 partition of unit

4.3 pseudo-trajectory
   asymptotically dynamical pseudo-trajectory
   with dynamical asymptotics $T_\bullet$ (a.d.p.t.)
   piecewise continuous pseudo-trajectory $w(\bullet|\bullet)$
   $\omega$-dense pseudo-trajectory

4.4 subharmonic curve

5.1 entire function of order $\rho$ and normal type
   with respect to proximate order $\rho(r)$
   entire function with prescribed limit set
   meromorphic function of order $\rho$ and normal type
   with respect to a proximate order $\rho(r)$

5.2 relative Carleson $\alpha$-measure

5.3 lower indicator of entire function

5.4 maximal interval of $\rho$-trigonometricity
   strictly $\rho$-t.c.f.
   concordant $h$ and $g$

5.5 upper density of zeros of entire function
   $(\mathcal{X})$-integral with respect to a nonnegative measure $\delta$

5.6 completely regular growth function
   CRG-function
   regular zero distribution
   regular zero distribution with integer $\rho$
   completely regular growth functions
   along curves of regular rotation
   curve of regular rotation

5.7 growth characteristic
   continuity, positive homogeneity
   asymptotic characteristics of growth
   total family of growth characteristics
   non-rarefied set
   rarefied set
   thinly closed set
   independent family of characteristic
6.1 ideally complementing $H$-multiplicator
entire function is of minimal type
with respect to a proximate order $\rho(r), \rho(r) \to \rho$
limit set of indicators
the maximum principle for $U[\rho]$ is valid in the domain $G$

6.2 automorphic
connected on spirals
spectrum
strictly monotonic
minimal $v \in U[\rho]$

6.3 function of exponential type
completeness
maximality
extremal overcompleteness
maximal domain of completeness
extremely overcomplete system $\exp \Lambda$
trigonometrically convex function (t.c.f)
conjugate indicator diagram
regular set
$G_\Lambda$ is enclosed in $G$
enclosed with sliding
enclosed hardly
enclosed freely
indicator limit set
indicator set
zero with tangency
$\Lambda$ is periodic
$w \in U[1]$ is minimal
$U \subset U[1]$ is minimal
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The workshops organized by the *Mathematisches Forschungsinstitut Oberwolfach* are intended to introduce students and young mathematicians to current fields of research. By means of these well-organized seminars, also scientists from other fields will be introduced to new mathematical ideas. The publication of these workshops in the series *Oberwolfach Seminars* (formerly *DMV seminar*) makes the material available to an even larger audience.


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